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OM protein - protein search, using sw model

Run on: September 4, 2002, 13:53:36 ; Search time 165.17 Seconds
(without alignments)
315.394 Million cell updates/sec

Title: US-09-052-089A-1
Perfect score: 2384
Sequence: 1 MPIRALCTICSDFFDHSRDV.....VRVKTVPSLFQAKLDTFLWS 469

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 747574 seqs, 111073796 residues

Total number of hits satisfying chosen parameters: 747574

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_032802:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	2357	98.9	469	20	AAY30149	Amino acid sequenc
2	2350	98.6	469	19	AAW37881	BRCA1 modulator pr
3	286.5	12.0	455	22	ABB61289	Drosophila melanog
4	187.5	7.9	2663	22	AAM39097	Human polypeptide
5	187.5	7.9	2688	22	AAM40883	Human polypeptide
6	184.5	7.7	2633	22	ABG06505	Novel human diagno
7	179	7.5	477	21	AAB42919	Human ORFX ORF2683
8	178	7.5	962	20	AAY31646	Human transport-as
9	174.5	7.3	533	22	AAM79969	Human protein SEQ
10	174	7.3	463	22	ABG03671	Novel human diagno
11	172.5	7.2	1374	22	AAB69070	Human male enhance
12	170.5	7.2	1456	22	ABB58673	Drosophila melanog
13	170	7.1	951	22	ABB59033	Drosophila melanog
14	169.5	7.1	484	22	AAM78985	Human protein SEQ
15	169	7.1	1690	22	ABB61144	Drosophila melanog
16	169	7.1	1690	22	ABB61173	Drosophila melanog
17	168	7.0	1325	18	AAW19540	Male-enhanced anti
18	168	7.0	1325	20	AAW94391	Mouse male enhance
19	167.5	7.0	934	22	AAU01768	Human secreted pro
20	167.5	7.0	1017	22	AAE02246	Domestic mite Bt11
21	167.5	7.0	2517	21	AAY71159	Human phosphodiest
22	167	7.0	482	22	ABB71396	Drosophila melanog
23	167	7.0	2067	22	ABB71125	Drosophila melanog
24	166.5	7.0	875	22	AAE02245	Domestic mite Bt11
25	166.5	7.0	878	22	AAE02242	Domestic mite Bt11
26	166	7.0	1960	22	AAM78854	Human protein SEQ
27	166	7.0	2143	22	ABG01716	Novel human diagno
28	165.5	6.9	2954	20	AAY01632	Amino acid sequenc
29	164.5	6.9	690	22	AAM80122	Human protein SEQ
30	164.5	6.9	880	22	AAB96332	Putative P. abyssi
31	164	6.9	808	22	ABG05140	Novel human diagno
32	164	6.9	1177	22	AAB96721	Putative P. abyssi
33	164	6.9	2442	21	AAY77575	Human cytoskeletal
34	163.5	6.9	441	10	AAP90955	M6 streptococcal p
35	163.5	6.9	441	14	AAR41780	Streptococcus pyog
36	163.5	6.9	483	18	AAW08927	Type-6 M-protein.
37	163.5	6.9	1213	22	AAM40016	Human polypeptide
38	163.5	6.9	1639	22	ABB59807	Drosophila melanog
39	163.5	6.9	1752	20	AAY07031	Breast cancer asso
40	163.5	6.9	1988	22	AAM40999	Human polypeptide
41	163.5	6.9	1988	22	AAM41000	Human polypeptide
42	163.5	6.9	2779	22	ABB62371	Drosophila melanog
43	163.5	6.9	2918	22	ABG27218	Novel human diagno
44	163	6.8	721	21	AAB21227	Protein encoded by
45	163	6.8	1717	22	ABG20672	Novel human diagno

ALIGNMENTS

RESULT 1
AAY30149
ID AAY30149 standard; Protein; 469 AA.
XX
AC AAY30149;
XX
DT 27-OCT-1999 (first entry)
XX
DE Amino acid sequence of a BRCA1 modulator protein.
XX
KW Modulator protein; BRCA1; tumour suppressor protein; breast cancer;
KW ovarian cancer; cell growth; cell proliferation.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Region 3..32
FT /note= "zinc finger motif"
FT Region 230..255
FT /note= "leucine zipper motif"
XX
PN US5948643-A.
XX
PD 07-SEP-1999.
XX
PF 13-AUG-1997; 97US-0968751.
XX
PR 13-AUG-1997; 97US-0968751.
XX
PA (ONYX-) ONYX PHARM INC.
XX
PI Lingenfelter C, Polakis PG, Rubinfeld B, Vuong TT;
XX
DR WPI; 1999-517952/43.

```
DR   N-PSDB; AAX86754.
XX
PT   Modulator proteins that bind to and modulate the activity of the
PT   BRCA1 tumour suppressor gene product, useful for the treatment of
PT   ovarian and breast cancer
XX
PS   Example 1; Fig 1; 35pp; English.
XX
CC   The present sequence represents a modulator protein, that binds to and
CC   modulate the activity of the BRCA1 gene product (BRCA1). The BRCA1
CC   protein has been characterized as a tumour suppressor protein.
CC   Alterations in the amino acid sequence of BRCA1 causes breast and ovarian
CC   cancers by removing the controls on cell growth and proliferation.
CC   Research has shown that different regions on the BRCA1 molecule have
CC   different effects on cell growth and tumour suppression (e.g. full length
CC   truncated BRCA1 has no effect on breast cancer cell growth but will
CC   inhibit ovarian cancer cell growth). It has been suggested that different
CC   host cell factors (e.g. proteins) interact with different regions of the
CC   BRCA1 to control its function. The identification of these proteins
CC   (e.g. BRCA1MP) will facilitate the development of novel diagnostic
CC   methods and new therapeutics for identifying and treating cancers caused
CC   by changes in the expression or activity of BRCA1.
XX
SQ   Sequence   469 AA;


  Query Match           98.9%;  Score 2357;  DB 20;  Length 469;
  Best Local Similarity  99.1%;  Pred. No. 3.9e-184;
  Matches  465;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy       1 MPIRALCTICSDFFDHSRDVAAIHCGHTFHLQCLIQSFETAPSRTCPQCRIQVGKRTIIN 60
           |||||||||||||||||||||||||||||||||||| ||||||||||||||||||||||
Db       1 mpiralcticsdffdhsrdvaaihcghtfhlqcliqwfetapsrtcpqcriqvgkrtiin 60

Qy      61 KLFFDLAQEEENVLDREFLKNELDNVRAQLSQKDKEKRDSQVIIDTLRDTLEERNATVVS 120
           |||||||||||||| ||||||||||||||||||||||||||||||||||||||||||||
Db      61 klffdlaqeeenvldaeflkneldnvraqlsqkdkekrdsqviidtlrdtleernatvvs 120

Qy     121 LQQALGKAEMLCSTLKKQMKYLEQQQDETKQAQEEAGRLRSKMKTMEQIELLLQSQLPEV 180
           |||||||||||||||||||||||||||||||| |||||||||||||||||| |||
Db     121 lqqalgkaemlcstlkkqmkyleqqqdetkqaqeearrlrskmktmeqiellqsqrpev 180

Qy     181 EEMIRDMGVGQSAVEQLAVYCVSLKKEYENLKEARKASGEVADKLRKDLFSSRSKLQTVY 240
           |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     181 eemirdmgvgqsaveqlavycvslkkeyenlkearkasgevadklrkdlfssrsklqtvy 240

Qy     241 SELDQAKLELKSAQKDLQSADKEIMSLKKKLTMLQETLNLPPVASETVDRLVLESPAPVE 300
           |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     241 seldqaklelksaqkdlqsadkeimslkkkltmlqetlnlppvasetvdrlvlespapve 300

Qy     301 VNLKLRRPSFRDDIDLNATFDVDTPPARPSSSQHGYYEKLCLEKSHSPIQDVPKKICKGP 360
           |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     301 vnlklrrpsfrddidlnatfdvdtpparpsssqhgyyeklclekshspigdvpkkickgp 360

Qy     361 RKESQLSLGGQSCAGEPDEELVGAFPIFVRNAILGQKQPKRPRSESSCSKDVVRTGFDGL 420
           |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     361 rkesqlslggqscagepdeelvgafpifvrnailgqkqpkrprsesscskdvvrtgfdgl 420

Qy     421 GGRTKFIQPTDTVMIRPLPVKPKTKVKQRVRVKTVPSLFQAKLDTFLWS 469
           |||||||||||||||||||||||||||||||||||||||||||||||||
Db     421 ggrtkfiqptdtvmirplpvkpktkvkqrvrvktvpslfqakldtflws 469


RESULT   2
AAW37881
ID   AAW37881 standard; Protein; 469 AA.
XX
AC   AAW37881;
XX
DT   28-AUG-1998  (first entry)
XX
DE   BRCA1 modulator protein 091-21A31.
XX
KW   BRCA1 modulator protein; 091-21A31; breast cancer antigen 1;
KW   tumour suppressor protein; diagnosis; therapy; human.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Domain          3..54
FT                   /note= "zinc finger motif"
FT   Domain          229..255
FT                   /note= "leucine zipper motif"
XX
PN   WO9810066-A1.
XX
PD   12-MAR-1998.
XX
PF   06-AUG-1997;   97WO-US13944.
XX
PR   04-SEP-1996;   96US-0025601.
XX
PA   (ONYX-) ONYX PHARM INC.
XX
PI   Ligenfelter C,  Polakis P,  Rubinfeld B,  Vuong TT;
XX
DR   WPI; 1998-193616/17.
DR   N-PSDB; AAV29062.
XX
PT   Breast cancer antigen 1 modulator protein - useful for diagnosing
PT   diseases involving unwanted cell growth, e.g. breast cancer, and for
PT   producing therapeutics for treatment of such diseases
XX
PS   Example 1; Fig 1; 73pp; English.
XX
CC   This polypeptide comprises a 53 kDa BRCA1 modulator protein that
CC   binds to the tumour suppressor gene product BRC1, and which is
CC   characterised by a zinc finger domain and a leucine zipper motif.
CC   Its amino acid sequence was deduced from the nucleotide sequence
CC   of a cDNA clone (see AAV29062), designated 091-21A31 (ATCC 98141),
CC   isolated from a HeLa cell cDNA library using a yeast two-hybrid
CC   assay.  3 cDNA clones (see also AAV29063-64) coding for BRCA1
CC   modulator proteins (see AAW37881-83) have been characterised. Vectors
CC   and host cells comprising the isolated nucleic acid sequences are
CC   claimed, as well as a process for producing BRCA1 modulator protein
CC   by culturing these host cells.  BRCA1 modulator proteins and nucleic
CC   acids can be used to diagnose diseases involving unwanted cell
CC   growth, e.g. breast cancer, and to identify compounds that alter
CC   BRCA1 interaction with BRCA1 modulators for the treatment of such
CC   diseases.
XX
SQ   Sequence   469 AA;


  Query Match           98.6%;  Score 2350;  DB 19;  Length 469;
  Best Local Similarity  98.9%;  Pred. No. 1.5e-183;
  Matches  464;  Conservative    0;  Mismatches    5;  Indels    0;  Gaps    0;

Qy       1 MPIRALCTICSDFFDHSRDVAAIHCGHTFHLQCLIQSFETAPSRTCPQCRIQVGKRTIIN 60
           |||||||||||||||||||||||||||||||||||| ||||||||||||||||||||||
Db       1 mpiralcticsdffdhsrdvaaihcghtfhlqcliqwfetapsrtcpqcriqvgkrtiin 60

Qy      61 KLFFDLAQEEENVLDREFLKNELDNVRAQLSQKDKEKRDSQVIIDTLRDTLEERNATVVS 120
           |||||||||||||| ||||||||||||||||||||||||||||||||||||||||||||
Db      61 klffdlaqeeenvldaeflkneldnvraqlsqkdkekrdsqviidtlrdtleernatvvs 120

Qy     121 LQQALGKAEMLCSTLKKQMKYLEQQQDETKQAQEEAGRLRSKMKTMEQIELLLQSQLPEV 180
           |||||||||||||||||||||||||||||||| |||||||||||||||||| |||
Db     121 lqqalgkaemlcstlkkqmkyleqqqdetkqaqeearrlrskmktmeqiellqsqrpev 180

Qy     181 EEMIRDMGVGQSAVEQLAVYCVSLKKEYENLKEARKASGEVADKLRKDLFSSRSKLQTVY 240
           |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     181 eemirdmgvgqsaveqlavycvslkkeyenlkearkasgevadklrkdlfssrsklqtvy 240

Qy     241 SELDQAKLELKSAQKDLQSADKEIMSLKKKLTMLQETLNLPPVASETVDRLVLESPAPVE 300
           |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
```

```
Db    241 seldqaklelksaqkdlqsadkeimslkkkltmlqetlnlppvasetvdrlvlespapve 300

Qy    301 VNLKLRRPSFRDDIDLNATFDVDTPPARPSSSQHGYYEKLCLEKSHSPIQDVPKKICKGP 360
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    301 vnlklrrpsfrddidlnatfdvdtpparpsssqhgyyeklclekshspiqdvpkkickgp 360

Qy    361 RKESQLSLGGQSCAGEPDEELVGAFPIFVRNAILGQKQPKRPRSESSCSKDVVRTGFDGL 420
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    361 rkesqlslggqscagepdeelvgafpifvrnailgqkqpkrprsesscskdvvrtgfdgl 420

Qy    421 GGRTKFIQPTDTVMIRPLPVKPKTKVKQRVRVKTVPSLFQAKLDTFLWS 469
          ||||||||||||||||||||||||||||||||||||||||| |||||
Db    421 ggrtkfiqptdtvmirplpvkpktkvkqrvrvktvpslfqaklhtflws 469


RESULT   3
ABB61289
ID   ABB61289 standard; Protein; 455 AA.
XX
AC   ABB61289;
XX
DT   26-MAR-2002  (first entry)
XX
DE   Drosophila melanogaster polypeptide SEQ ID NO 10659.
XX
KW   Drosophila; developmental biology; cell signalling; insecticide;
KW   pharmaceutical.
XX
OS   Drosophila melanogaster.
XX
PN   WO200171042-A2.
XX
PD   27-SEP-2001.
XX
PF   23-MAR-2001; 2001WO-US09231.
XX
PR   23-MAR-2000; 2000US-191637P.
PR   11-JUL-2000; 2000US-0614150.
XX
PA   (PEKE ) PE CORP NY.
XX
PI   Venter JC,  Adams M,  Li PWD,  Myers EW;
XX
DR   WPI; 2001-656860/75.
DR   N-PSDB; ABL05392.
XX
PT   New isolated nucleic acid detection reagent for detecting 1000 or more
PT   genes from Drosophila and for elucidating cell signalling and cell-cell
PT   interactions -
XX
PS   Disclosure; SEQ ID NO 10659; 21pp + Sequence Listing; English.
XX
CC   The invention relates to an isolated nucleic acid detection reagent
CC   capable of detecting 1000 or more genes from Drosophila. The invention is
CC   useful in developmental biology and in elucidating cell signalling and
CC   cell-cell interactions in higher eukaryotes for the development of
CC   insecticides, therapeutics and pharmaceutical drugs. The invention
CC   discloses genomic DNA sequences (ABL16176-ABL30511), expressed DNA
CC   sequences (ABL01840-ABL16175) and the encoded proteins
CC   (ABB57737-ABB72072).
CC   The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence   455 AA;


  Query Match           12.0%;  Score 286.5;  DB 22;  Length 455;
  Best Local Similarity  24.3%;  Pred. No. 5.5e-15;
  Matches  114;  Conservative   82;  Mismatches  161;  Indels  113;  Gaps   18;

Qy      7 CTICSDFFDHSRDVAAIHCGHTFHLQCLIQSFETAPSRTCPQCRIQVGKRTIINKLFFDL 66
            | ||:: |  : :| |  ||| ||  || |  :   |:|||||| :   | |  :::|:|

Db      6 cvicaelfgqadevfatvcghmfhhnclnqwldr--sktcpqcrnkcttrnif-rvyfnl 62

Qy     67 AQEEENVLDREFLKNELDNVRAQLSQKDKEKRDSQVIIDTLRDTLEERNATVVSLQQALG 126
          |  : : :|   |: :|||    :   :||:   :  |  |::| ::   |:  |:| :
Db     63 anldvshidvgslqeqldnamlsmkmvekernkdeqqirdlketqkkclktiagleqkvq 122

Qy    127 KAEMLCSTLKKQMKYLEQQQDETKQAQEEAGRLRSKMKTMEQIELLLQSQLPEVEEMIRD 186
          | : | |:  :|:  |:         ::|   |:|::::|| |  :| :   : : ::::
Db    123 kkdflissyveqigvlksdahvvdglrkenktlksqiqsmegisailaagsadadrllkn 182

Qy    187 MGVGQSAVEQLAVYCVSLKKEYENLK----EARKASGEVADKLRKDLFSSR--------- 233
            ::    || :  :||:|    :    | |     | : |||::   |
Db    183 ----eadphvlanwvstlkrelrqceskktelrnvvkvvqndlrkeielkryahnipnvv 238

Qy    234 ----------SKLQTVYSELD------QAKL---ELKSAQKDLQSA----DKEIMSLKKK 270
                   |||:   | |:      | ||   | |:|  |  :|    :  |::||::
Db    239 fiidmcsfdcskleervshlesdlyqaqeklqafenktayldspnascglnsnilalkre 298

Qy    271 LTMLQETLNLPPVASETVDRLVLESPAPVEVNLKLRRPSFRDDIDLNATFDVDTPPARPS 330
            :    : |   | : | : || :|  :|:|
Db    299 ----errttisptvkenikr-ieestspy-lnik------------------------- 326

Qy    331 SSQHGYYE------KLCLEKSH-SPIQDVPKKICKGPRKESQLSLGGQSCAG----EPDE 379
          ||  |          : | ||  ||| |                 || |       :
Db    327 sssvglahllntkgniglakskispikgvg--------------ggvsmtsgtirktss 371

Qy    380 ELVGAFPIFVRNAILGQKQPKRPRSESSCSKDVVRTG----FDGLGGRTK 425
          :|   : ||        |:|:     || |     ||    ::|:|| |
Db    372 dlsekysif--------kkprlllgsssssaltattgsnfvyngmggsek 413


RESULT   4
AAM39097
ID   AAM39097 standard; Protein; 2663 AA.
XX
AC   AAM39097;
XX
DT   22-OCT-2001  (first entry)
XX
DE   Human polypeptide SEQ ID NO 2242.
XX
KW   Human; nootropic; immunosuppressant; cytostatic; gene therapy; cancer;
KW   peripheral nervous system; neuropathy; central nervous system; CNS;
KW   Alzheimer's; Parkinson's disease; Huntington's disease; haemostatic;
KW   amyotrophic lateral sclerosis; Shy-Drager Syndrome; chemotactic;
KW   chemokinetic; thrombolytic; drug screening; arthritis; inflammation;
KW   leukaemia.
XX
OS   Homo sapiens.
XX
PN   WO200153312-A1.
XX
PD   26-JUL-2001.
XX
PF   26-DEC-2000; 2000WO-US34263.
XX
PR   21-JAN-2000; 2000US-0488725.
PR   25-APR-2000; 2000US-0552317.
PR   09-JUL-2000; 2000US-0598042.
PR   19-JUL-2000; 2000US-0620312.
PR   03-AUG-2000; 2000US-0653450.
PR   14-SEP-2000; 2000US-0662191.
PR   19-OCT-2000; 2000US-0693036.
PR   29-NOV-2000; 2000US-0727344.
XX
PA   (HYSE-) HYSEQ INC.
XX
PI   Tang YT,  Liu C,  Asundi V,  Chen R,  Ma Y,  Qian XB,  Ren F,  Wang D;
PI   Wang J,  Wang Z,  Wehrman T,  Xu C,  Xue AJ,  Yang Y,  Zhang J;
PI   Zhao QA,  Zhou P,  Goodrich R,  Drmanac RT;
XX
DR   WPI; 2001-442253/47.
DR   N-PSDB; AAI58253.
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```
XX
PT   Novel nucleic acids and polypeptides, useful for treating disorders
PT   such as central nervous system injuries -
XX
PS   Example 4; SEQ ID NO 2242; 10078pp; English.
XX
CC   The invention relates to human nucleic acids (AAI57798-AAI61369) and
CC   the encoded polypeptides (AAM38642-AAM42213) with nootropic,
CC   immunosuppressant and cytostatic activity. The polynucleotides are useful
CC   in gene therapy. A composition containing a polypeptide or polynucleotide
CC   of the invention may be used to treat diseases of the peripheral nervous
CC   system, such as peripheral nervous injuries, peripheral neuropathy and
CC   localised neuropathies and central nervous system diseases, such as
CC   Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic
CC   lateral sclerosis, and Shy-Drager Syndrome. Other uses include the
CC   utilisation of the activities such as: Immune system suppression,
CC   Activin/inhibin activity, chemotactic/chemokinetic activity, haemostatic
CC   and thrombolytic activity, cancer diagnosis and therapy, drug screening,
CC   assays for receptor activity, arthritis and inflammation, leukaemias and
CC   C.N.S disorders.
CC   Note: The sequence data for this patent did not form part of the printed
CC   specification.
XX
SQ   Sequence   2663 AA;


  Query Match             7.9%;  Score 187.5;  DB 22;  Length 2663;
  Best Local Similarity   25.1%;  Pred. No. 7.8e-06;
  Matches   93;  Conservative   66;  Mismatches  133;  Indels   79;  Gaps   18;

Qy      55 KRTIINKLFFDLAQEEENVLDREFLKNELDNVRAQLSQKDKEK-RDSQVIIDTLRDTLEE 113
           | | :|       : :| : : | || : :  :  |   : |  | :|:    | : |||
Db    1632 kmtavn-------etqekmceiehlkeqfetqklnlenietenirltqi----lhenlee 1680

Qy     114 RNATVVSLQQALGKAEMLCSTLKKQMKYLEQQQDET----KQAQEEAG----RLRSKMKT 165
              :|   :  |   |    ||| :   |::   ||     : |||       |:   :|
Db    1681 mr-svtkerddlrsve---etlkverdqlkenlretitrdlekqeelkivhmhlkehqet 1736

Qy     166 MEQIELLLQSQLPEVEEMIRDMGVGQSAV--------EQLAVYCVSLKKEYENLKEARKA 217
           ::::  ::  :  |:  | :|:     |:        |:| :  : ||:: | : : |
Db    1737 idklrgivsektneisnmqkdlehsndalkaqdlkiqeelriahmhlkeqqetidklrgi 1796

Qy     218 SGEVADKL---RKDLFSSRSKLQTVYSELDQAKLELKSAQKDLQSADK---EIMSLKKK- 270
             |  |||   :||| :| :|||    ||   : :| : :||:    |   |:  |||:
Db    1797 vsektdklsnmqkdlensnaklqekiqelkanehqlitlkkdvnetqkkvsemeqlkkqi 1856

Qy     271 ------LTMLQ-ETLNLPPVASETVDRL-----VLESPAPVEVNLKLRRPSFRDDI---- 314
                 |: |: | |||     | :: :       ::   ||  ||| |   :: :
Db    1857 kdqsltlskleienlnlaqelhenleemksvmkerdnlrrveetlklerdqlkeslqetk 1916

Qy     315 --DLNATFDVDTPPARPSSSQH-----GYYEKLC-----------LEKSHSPIQDVPKK 355
             ||    :: |  ||  | :|        ||:            |:||   :|   ||
Db    1917 ardleiqqelkt--armlskehketvdklrekisektiqisdiqkdldkskdelq---kk 1971

Qy     356 ICKGPRKESQL 366
           | :  :|| ||
Db    1972 iqelqkkelql 1982


RESULT   5
AAM40883
ID   AAM40883 standard; Protein; 2688 AA.
XX
AC   AAM40883;
XX
DT   22-OCT-2001  (first entry)
XX
DE   Human polypeptide SEQ ID NO 5814.
XX
KW   Human; nootropic; immunosuppressant; cytostatic; gene therapy; cancer;
KW   peripheral nervous system; neuropathy; central nervous system; CNS;
KW   Alzheimer's; Parkinson's disease; Huntington's disease; haemostatic;
KW   amyotrophic lateral sclerosis; Shy-Drager Syndrome; chemotactic;
KW   chemokinetic; thrombolytic; drug screening; arthritis; inflammation;
KW   leukaemia.
XX
OS   Homo sapiens.
XX
PN   WO200153312-A1.
XX
PD   26-JUL-2001.
XX
PF   26-DEC-2000; 2000WO-US34263.
XX
PR   21-JAN-2000; 2000US-0488725.
PR   25-APR-2000; 2000US-0552317.
PR   09-JUL-2000; 2000US-0598042.
PR   19-JUL-2000; 2000US-0620312.
PR   03-AUG-2000; 2000US-0653450.
PR   14-SEP-2000; 2000US-0662191.
PR   19-OCT-2000; 2000US-0693036.
PR   29-NOV-2000; 2000US-0727344.
XX
PA   (HYSE-) HYSEQ INC.
XX
PI   Tang YT,  Liu C,  Asundi V,  Chen R,  Ma Y,  Qian XB,  Ren F,  Wang D;
PI   Wang J,  Wang Z,  Wehrman T,  Xu C,  Xue AJ,  Yang Y,  Zhang J;
PI   Zhao QA,  Zhou P,  Goodrich R,  Drmanac RT;
XX
DR   WPI; 2001-442253/47.
DR   N-PSDB; AAI60039.
XX
PT   Novel nucleic acids and polypeptides, useful for treating disorders
PT   such as central nervous system injuries -
XX
PS   Example 2; SEQ ID NO 5814; 10078pp; English.
XX
CC   The invention relates to human nucleic acids (AAI57798-AAI61369) and
CC   the encoded polypeptides (AAM38642-AAM42213) with nootropic,
CC   immunosuppressant and cytostatic activity. The polynucleotides are useful
CC   in gene therapy. A composition containing a polypeptide or polynucleotide
CC   of the invention may be used to treat diseases of the peripheral nervous
CC   system, such as peripheral nervous injuries, peripheral neuropathy and
CC   localised neuropathies and central nervous system diseases, such as
CC   Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic
CC   lateral sclerosis, and Shy-Drager Syndrome. Other uses include the
CC   utilisation of the activities such as: Immune system suppression,
CC   Activin/inhibin activity, chemotactic/chemokinetic activity, haemostatic
CC   and thrombolytic activity, cancer diagnosis and therapy, drug screening,
CC   assays for receptor activity, arthritis and inflammation, leukaemias and
CC   C.N.S disorders.
CC   Note: The sequence data for this patent did not form part of the printed
CC   specification.
XX
SQ   Sequence   2688 AA;


  Query Match             7.9%;  Score 187.5;  DB 22;  Length 2688;
  Best Local Similarity   25.1%;  Pred. No. 7.9e-06;
  Matches   93;  Conservative   66;  Mismatches  133;  Indels   79;  Gaps   18;

Qy      55 KRTIINKLFFDLAQEEENVLDREFLKNELDNVRAQLSQKDKEK-RDSQVIIDTLRDTLEE 113
           | | :|       : :| : : | || : :  :  |   : |  | :|:    | : |||
Db    1656 kmtavn-------etqekmceiehlkeqfetqklnlenietenirltqi----lhenlee 1704

Qy     114 RNATVVSLQQALGKAEMLCSTLKKQMKYLEQQQDET----KQAQEEAG----RLRSKMKT 165
              :|   :  |   |    ||| :   |::   ||     : |||       |:   :|
Db    1705 mr-svtkerddlrsve---etlkverdqlkenlretitrdlekqeelkivhmhlkehqet 1760

Qy     166 MEQIELLLQSQLPEVEEMIRDMGVGQSAV--------EQLAVYCVSLKKEYENLKEARKA 217
           ::::  ::  :  |:  | :|:     |:        |:| :  : ||:: | : : |
Db    1761 idklrgivsektneisnmqkdlehsndalkaqdlkiqeelriahmhlkeqqetidklrgi 1820

Qy     218 SGEVADKL---RKDLFSSRSKLQTVYSELDQAKLELKSAQKDLQSADK---EIMSLKKK- 270
             |  |||   :||| :| :|||    ||   : :| : :||:    |   |:  |||:
Db    1821 vsektdklsnmqkdlensnaklqekiqelkanehqlitlkkdvnetqkkvsemeqlkkqi 1880
```

```
Qy    271 ------LTMLQ-ETLNLPPVASETVDRL-----VLESPAPVEVNLKLRRPSFRDDI---- 314
              |: |: | |||     | :: :       ::   ||  ||| |   :: :
Db   1881 kdqsltlskleienlnlaqklhenleemksvmkerdnlrrveetlklerdqlkeslqetk 1940

Qy    315 --DLNATFDVDTPPARPSSSQH-----GYYEKLC-----------LEKSHSPIQDVPKK 355
            ||    :: |  ||  | :|        ||:            |:||   :|   ||
Db   1941 ardleiqqelkt--armlskehketvdklrekisektiqisdiqkdldkskdelq---kk 1995

Qy    356 ICKGPRKESQL 366
          | :  :|| ||
Db   1996 iqelqkkelql 2006


RESULT   6
ABG06505
ID   ABG06505 standard; Protein; 2633 AA.
XX
AC   ABG06505;
XX
DT   13-FEB-2002  (first entry)
XX
DE   Novel human diagnostic protein #6496.
XX
KW   Human; chromosome mapping; gene mapping; gene therapy; forensic;
KW   food supplement; medical imaging; diagnostic; genetic disorder.
XX
OS   Homo sapiens.
XX
PN   WO200175067-A2.
XX
PD   11-OCT-2001.
XX
PF   30-MAR-2001; 2001WO-US08631.
XX
PR   31-MAR-2000; 2000US-0540217.
PR   23-AUG-2000; 2000US-0649167.
XX
PA   (HYSE-) HYSEQ INC.
XX
PI   Drmanac RT,  Liu C,  Tang YT;
XX
DR   WPI; 2001-639362/73.
DR   N-PSDB; AAS70692.
XX
PT   New isolated polynucleotide and encoded polypeptides, useful in
PT   diagnostics, forensics, gene mapping, identification of mutations
PT   responsible for genetic disorders or other traits and to assess
PT   biodiversity  -
XX
PS   Claim 20; SEQ ID No 36864; 103pp; English.
XX
CC   The invention relates to isolated polynucleotide (I) and
CC   polypeptide (II) sequences. (I) is useful as hybridisation probes,
CC   polymerase chain reaction (PCR) primers, oligomers, and for chromosome
CC   and gene mapping, and in recombinant production of (II). The
CC   polynucleotides are also used in diagnostics as expressed sequence tags
CC   for identifying expressed genes. (I) is useful in gene therapy techniques
CC   to restore normal activity of (II) or to treat disease states involving
CC   (II). (II) is useful for generating antibodies against it, detecting or
CC   quantitating a polypeptide in tissue, as molecular weight markers and as
CC   a food supplement. (II) and its binding partners are useful in medical
CC   imaging of sites expressing (II). (I) and (II) are useful for treating
CC   disorders involving aberrant protein expression or biological activity.
CC   The polypeptide and polynucleotide sequences have applications in
CC   diagnostics, forensics, gene mapping, identification of mutations
CC   responsible for genetic disorders or other traits to assess biodiversity
CC   and to produce other types of data and products dependent on DNA and
CC   amino acid sequences. ABG00010-ABG30377 represent novel human
CC   diagnostic amino acid sequences of the invention.
CC   Note: The sequence data for this patent did not appear in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence   2633 AA;


  Query Match             7.7%;  Score 184.5;  DB 22;  Length 2633;
  Best Local Similarity   24.4%;  Pred. No. 1.4e-05;
  Matches   88;  Conservative   66;  Mismatches  135;  Indels   71;  Gaps   16;

Qy     55 KRTIINKLFFDLAQEEENVLDREFLKNELDNVRAQLSQKDKEK-RDSQVIIDTLRDTLEE 113
          | | :|       : :| : : | || : :  :  |   : |  | :|:    | : |||
Db   1632 kmtavn-------etqekmceiehlkeqfetqklnlenietenirltqi----lhenlee 1680

Qy    114 RNATVVSLQQALGKAEMLCSTLKKQMKYLEQQQDET----KQAQEEAG----RLRSKMKT 165
             :|   :  |   |    ||| :   |::   ||     : |||       |:   :|
Db   1681 mr-svtkerddlrsve---etlkverdqlkenlretitrdlekqeelkivhmhlkehqet 1736

Qy    166 MEQIELLLQSQLPEVEEMIRDMGVGQSAV--------EQLAVYCVSLKKEYENLKEARKA 217
          :::: ::  :  |:  | :|:     |:        |:| :  : ||:: | : : |
Db   1737 idklrgivsektneisnmqkdlehsndalkaqdlkiqeelriahmhlkeqqetidklrgi 1796

Qy    218 SGEVADKL---RKDLFSSRSKLQTVYSELDQAKLELKSAQKDLQSADK---EIMSLKKK- 270
            | |||   :||| :| :|||    ||   : :| : :||:    |   |:  |||:
Db   1797 vsektdklsnmqkdlensnaklqekiqelkanehqlitlkkdvnetqkkvsemeqlkkqi 1856

Qy    271 ------LTMLQ-ETLNLPPVASETVDRL-----VLESPAPVEVNLKLRRPSFRDDIDLNA 318
                |: |: | |||     | :: :       ::   ||  ||| |   :: :
Db   1857 kdqsltlskleienlnlaqelhenleemksvmkerdnlrrveetlklerdqlkeslqetk 1916

Qy    319 TFDVDTPPARPSSSQHGYYEKLC-----------LEKSHSPIQDVPKKICKGPRKESQL 366
          |::      : |     ||:             |:||   :|   ||| :  :|| ||
Db   1917 ardleiqqelktcs-----ekisektiqisdiqkdldkskdelq---kkiqelqkkelql 1968


RESULT   7
AAB42919
ID   AAB42919 standard; Protein; 477 AA.
XX
AC   AAB42919;
XX
DT   08-FEB-2001  (first entry)
XX
DE   Human ORFX ORF2683 polypeptide sequence SEQ ID NO:5366.
XX
KW   Human; open reading frame; ORFX; detection; cytostatic; hepatotropic;
KW   vulnerary; antipsoriatic; antiparkinsonian; nootropic; neuroprotective;
KW   anticonvulsant; osteopathic; antiarthritic; immunosuppressant; cardiant;
KW   immunostimulant; thrombolytic; coagulant; vasotropic; antidiabetic;
KW   hypotensive; dermatological; immunosuppressive; antiinflammatory;
KW   antiviral; antibacterial; antifungal; antirheumatic; antithyroid;
KW   antianaemic; gene therapy; cancer; proliferative disorder; hypertension;
KW   neurodegenerative disorder; osteoarthritis; graft vs host disease;
KW   cardiovascular disease; diabetes mellitus; hypothyroidism; SCID; AIDS;
KW   cholesterol ester storage; systemic lupus erythematosus; infection;
KW   severe combined immunodeficiency; malaria; autoimmune disorder; asthma;
KW   allergy; aplastic anaemia; nocturnal haemoglobinuria; burn; wound;
KW   bone damage; cartilage damage; antiinflammatory disease; coagulation;
KW   thrombosis; contraceptive.
XX
OS   Homo sapiens.
XX
PN   WO200058473-A2.
XX
PD   05-OCT-2000.
XX
PF   31-MAR-2000; 2000WO-US08621.
XX
PR   31-MAR-1999;   99US-0127607.
PR   02-APR-1999;   99US-0127636.
PR   05-APR-1999;   99US-0127728.
PR   30-MAR-2000;  2000US-0540763.
XX
PA   (CURA-) CURAGEN CORP.
XX
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```
PI   Shimkets RA,  Leach M;
XX
DR   WPI; 2000-602362/57.
DR   N-PSDB; AAC77128.
XX
PT   Novel nucleic acids and peptides derived from open reading frame X,
PT   useful for treating e.g. cancers, proliferative disorders,
PT   neurodegenerative disorders and cardiovascular disease -
XX
PS   Claim 11; Page 4548-4549; 5507pp; English.
XX
CC   AAC74446 to AAC77606 encode the proteins given in AAB40237 to AAB43397,
CC   which represent the human ORFX open reading frames 1 to 3161. The ORFX
CC   sequences have activities such as: cytostatic; hepatotropic; vulnerary;
CC   antipsoriatic; antiparkinsonian; nootropic; neuroprotective;
CC   osteopathic; anticonvulsant; antiarthritic; immunosuppressant;
CC   immunostimulant; cardiant; thrombolytic; coagulant; vasotropic;
CC   antidiabetic; hypotensive; dermatological; immunosuppressive;
CC   antiinflammatory; antibacterial; antiviral; antifungal; antirheumatic;
CC   antithyroid; and antianaemic. The sequences can be used for determining
CC   the presence of or predisposition to, or preventing or treating
CC   pathological conditions associated with an ORFX-associated disorder. The
CC   nucleic acids can be used to express ORFX proteins in gene therapy
CC   vectors. The proteins and nucleic acids may be used to treat cancers,
CC   proliferative disorders, neurodegenerative disorders, osteoarthritis,
CC   graft vs host disease, cardiovascular disease, diabetes mellitus,
CC   hypertension, hypothyroidism, cholesterol ester storage, systemic lupus
CC   erythematosus, severe combined immunodeficiency (SCID), AIDS, viral,
CC   bacterial or fungal infection, malaria, autoimmune disorders, asthma,
CC   allergies, aplastic anaemia, burns, wounds, bone and cartilage damage,
CC   nocturnal haemoglobinuria, antiinflammatory disease; to enhance
CC   coagulation; to inhibit thrombosis; and as a contraceptive.
XX
SQ   Sequence   477 AA;


  Query Match             7.5%;  Score 179;  DB 21;  Length 477;
  Best Local Similarity   25.3%;  Pred. No. 3.5e-06;
  Matches   84;  Conservative   56;  Mismatches  132;  Indels   60;  Gaps   14;

Qy       5 ALCTICSDFFDHSRDVAAIHCGHTFHLQCLIQSFETAPSR----------TCPQCRIQVG 54
           | |:|| |:|    |     |#| |   |:  |:| |  :           ||:||
Db      14 atcsicldyf---tdpvmttcghnfcraciqlswekargkkgrrkrkgsfpcpecremsp 70

Qy      55 KRTII-NKLFFDLAQ--EEENVLDREFLKNELDNVRAQLSQKDKEKRDSQVIIDTLRDTL 111
           :| :: |:|   :|:  ::   | :: |  |         |||:       |    |::
Db      71 qrnllpnrlltkvaemaqqhpglqkqdlcqehheplklfcqkdqsp-----icvvcresr 125

Qy     112 EERNATVVSLQQALGKAEMLCSTLKKQMKYLEQQQDET--KQAQEEAGRLRSKMKTMEQI 169
           | |   |:  ::|:   ::    |:: |:|| :|   |   ||:||      : |  |:
Db     126 ehrlhrvlpaeeavqgykl---kleedmeylreqitrtgnlqareeqslaewqgkvkerr 182

Qy     170 ELLLQSQLPEVEEMIRDMGVGQSAVEQLAVYCVSLKKEYENLKEARKASGEVADKLRKDL 229
           | ::                  |:: :| |  ::|   |:       | | :||: :
Db     183 erivle----------------fekmnlylv--eeeqrllqaleteeeetasrlresv 222

Qy     230 FSSRSKLQTVYSELDQAKLELKSAQKDLQSAD--KEIMSLKKKLTMLQETLNLPPVASET 287
             :  ::  ||   :|| :| |  ||     || :| |  :     ::  | ||  |
Db     223 acldrqghsl--ellllqleerstqgplqmlqdmkeplsrknnv-----svqcpevappt 275

Qy     288 VDRLVLESPAPVEVNLKLRRPSFRDDIDLNAT 319
             | |   |  :||   ||   | :|:  :||
Db     276 rprtvcrvpgqiev---lr--gfledvvpdat 302


RESULT   8
AAY31646
ID   AAY31646 standard; Protein; 962 AA.
XX
AC   AAY31646;
XX
DT   02-NOV-1999  (first entry)
XX
DE   Human transport-associated protein-8 (TRANP-8).
XX
KW   Transport-associated protein; TRANP; nuclear pore; nuclear transport;
KW   vesicle trafficking; cancer; cystic fibrosis; multidrug resistance;
KW   hypercholesterolaemia; diagnosis; treatment.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   18
FT                   /note= "O-phosphorylated by casein kinase II"
FT   Modified-site   34
FT                   /note= "O-phosphorylated by casein kinase II"
FT   Modified-site   74
FT                   /note= "O-phosphorylated by casein kinase II"
FT   Modified-site   81
FT                   /note= "O-phosphorylated by tyrosine kinase"
FT   Modified-site   91
FT                   /note= "O-phosphorylated by casein kinase II"
FT   Modified-site   101
FT                   /note= "N-glycosylated"
FT   Modified-site   123
FT                   /note= "N-glycosylated"
FT   Modified-site   129
FT                   /note= "O-phosphorylated by casein kinase II"
FT   Modified-site   243
FT                   /note= "N-glycosylated"
FT   Modified-site   336
FT                   /note= "O-phosphorylated by casein kinase II"
FT   Modified-site   410
FT                   /note= "O-phosphorylated by casein kinase II"
FT   Modified-site   451
FT                   /note= "N-glycosylated"
FT   Modified-site   453
FT                   /note= "O-phosphorylated by casein kinase II"
FT   Modified-site   585
FT                   /note= "O-phosphorylated by casein kinase II"
FT   Modified-site   631
FT                   /note= "O-phosphorylated by casein kinase II"
FT   Modified-site   632
FT                   /note= "O-phosphorylated by casein kinase II"
FT   Modified-site   717
FT                   /note= "O-phosphorylated by casein kinase II"
FT   Modified-site   754
FT                   /note= "O-phosphorylated by casein kinase II"
FT   Modified-site   758
FT                   /note= "O-phosphorylated by casein kinase II"
FT   Modified-site   780
FT                   /note= "O-phosphorylated by casein kinase II"
FT   Modified-site   844
FT                   /note= "O-phosphorylated by casein kinase II"
FT   Modified-site   882
FT                   /note= "N-glycosylated"
FT   Modified-site   890
FT                   /note= "O-phosphorylated by casein kinase II"
FT   Modified-site   902
FT                   /note= "O-phosphorylated by casein kinase II"
XX
PN   WO9941373-A2.
XX
PD   19-AUG-1999.
XX
PF   05-FEB-1999;   99WO-US02527.
XX
PR   11-FEB-1998;   98US-0021764.
XX
PA   (INCY-) INCYTE PHARM INC.
XX
PI   Au-Young J,  Bandman O,  Baughn MR,  Corley NC,  Guegler KJ;
PI   Hillman JL,  Lal P,  Yue H;
XX
DR   WPI; 1999-508646/42.
DR   N-PSDB; AAZ11738.
```

```
XX
PT   Human TRANP coding sequences, used to treat transport disorders and
PT   cancer
XX
PS   Claim 1; Page 74-77; 87pp; English.
XX
CC   This sequence represents human transport-associated protein-8 (TRANP-8).
CC   The DNA sequence was first identified in a human colon tissue
CC   cDNA library. The full-length cDNA was derived from a series of
CC   overlapping and/or extended cDNA sequences and is a consensus.
CC   TRANP-1 to 9 (AAY31639-Y31647) are a novel group of proteins with
CC   chemical and structural homology that are involved in molecular
CC   transport. Various disorders are associated with defects in the transport
CC   of molecules, either intracellularly or to the extracellular
CC   environment. Examples of such disorders include cystic fibrosis,
CC   multidrug resistance, hypercholesterolaemia and certain forms of diabetes
CC   mellitus. Defective nuclear transport may play a role in cancer. For
CC   example, the BRCA1 protein, associated with familial breast cancer, is
CC   normally imported into the nucleus via nuclear pore complexes, but is
CC   aberrantly located in the cytoplasm in breast cancer cells. In other
CC   cancers, cells can secrete excessive amounts of hormones e.g, cancers of
CC   the adrenal medulla can secrete excessive amounts of adrenaline and
CC   noradrenaline, leading to hypertension. TRANP is expressed in cancer
CC   cells, and transport disorders result from either excessive or
CC   insufficient molecular transport. Anti-TRANP antibodies and nucleic acids
CC   encoding TRANP can be used as diagnostic tools for such disorders. TRANP
CC   antagonists can be used to treat or prevent a cancer associated with
CC   increased TRANP expression. Anti-TRANP antibodies can be used directly
CC   as an antagonist or as a targetting mechanism for drugs. Alternatively,
CC   a a TRANP antisense nucleotide can be used to treat cancers. A TRANP
CC   agonist or expression vector may be used to treat a disorder caused by
CC   reduced transport of biologically active molecules.
XX
SQ   Sequence   962 AA;


  Query Match             7.5%;  Score 178;  DB 20;  Length 962;
  Best Local Similarity   20.4%;  Pred. No. 1.1e-05;
  Matches   76;  Conservative   62;  Mismatches   92;  Indels  142;  Gaps   11;

Qy      52 QVGKRTIINKLFF----------------DLAQEEENVLDREFLK--NELDNV--RAQLS 91
           ::||   | || |                 :    |  : | || |   ||: |  :|
Db     571 rigkenfieklgfiskhelysrasqkpqpnfpspeymifdheftklvkelegvitkaiyk 630

Qy      92 QKDKEKRDSQV---------IIDTLRDTLEERNATVVSLQQALG----KAEMLCSTLKKQ 138
             :::|:: :|         |:   :: : |::  :  |:| :     : | | : : :|
Db     631 sseedkkeeevkktleqhdnivthyknmireqdlqleelrqqvstlkcqneqlqtavtqq 690

Qy     139 MKYLEQQQDE-----------------TKQAQ------EEAGRLRSKMKTMEQIELLLQ 174
           :  ::| :|:                 :: ||      || |||| ::: ::: : |||
Db     691 vsqiqqhkdqynllkiqlgkdnqhqgsysegaqmngiqpeeigrlreeieelkrnqellq 750

Qy     175 SQLPEVEEMIRDMGVGQSA----------------VEQLAVYCVSLK------------ 205
           ||| | : || :|   |::                | :|     :||
Db     751 sqltekdsmienmkssqtsgtneqssaivsardseqvaelkqelatlksqlnsqsveitk 810

Qy     206 ---------------------------------------------KEYENLKEARKASGEV 221
                                                       :| : ||   ||  |
Db     811 lqtekqellqkteafaksvevqgetetiiatkttdvegrlsallqetkelkneikalsee 870

Qy     222 ADKLRKDLFSSRSKLQTVYSELDQAKLELKSAQKD-------LQSADKEIMSLKKKLTML 274
             ::: | || | :  : :| |: :||:  ::|:       |   |::|:||| ||  |
Db     871 rtaikeqldssnstiailqtekdkleleitdskkeqddllvlladqdqkilslknklkdl 930

Qy     275 QETLNLPPVASE 286
                 ||  |
Db     931 gh-----pveee 937


RESULT   9
AAM79969
ID   AAM79969 standard; Protein; 533 AA.
XX
AC   AAM79969;
XX
DT   06-NOV-2001  (first entry)
XX
DE   Human protein SEQ ID NO 3615.
XX
KW   Human; cytokine; cell proliferation; cell differentiation; gene therapy;
KW   vaccine; peptide therapy; stem cell growth factor; haematopoiesis;
KW   tissue growth factor; immunomodulatory; cancer; leukaemia;
KW   nervous system disorder; arthritis; inflammation.
XX
OS   Homo sapiens.
XX
PN   WO200157190-A2.
XX
PD   09-AUG-2001.
XX
PF   05-FEB-2001; 2001WO-US04098.
XX
PR   03-FEB-2000; 2000US-0496914.
PR   27-APR-2000; 2000US-0560875.
PR   20-JUN-2000; 2000US-0598075.
PR   19-JUL-2000; 2000US-0620325.
PR   01-SEP-2000; 2000US-0654936.
PR   15-SEP-2000; 2000US-0663561.
PR   20-OCT-2000; 2000US-0693325.
PR   30-NOV-2000; 2000US-0728422.
XX
PA   (HYSE-) HYSEQ INC.
XX
PI   Tang YT,  Liu C,  Drmanac RT,  Asundi V,  Zhou P,  Xu C,  Cao Y,  Ma Y;
PI   Zhao QA,  Wang D,  Wang J,  Zhang J,  Ren F,  Chen R,  Wang ZW;
PI   Xue AJ,  Yang Y,  Wejhrman T,  Goodrich R;
XX
DR   WPI; 2001-476283/51.
DR   N-PSDB; AAK53102.
XX
PT   Nucleic acids encoding polypeptides with cytokine-like activities,
PT   useful in diagnosis and gene therapy -
XX
PS   Claim 20; Page 397; 6221pp; English.
XX
CC   The invention relates to polynucleotides (AAK51456-AAK53435) and the
CC   encoded polypeptides (AAM78323-AAM80302) that exhibit activity elating to
CC   cytokine, cell proliferation or cell differentiation or which may induce
CC   production of other cytokines in other cell populations. The
CC   polynucleotides and polypeptides are useful in gene therapy, vaccines or
CC   peptide therapy. The polypeptides have various cytokine-like activities,
CC   e.g. stem cell growth factor activity, haematopoiesis regulating
CC   activity, tissue growth factor activity, immunomodulatory activity and
CC   activin/inhibin activity and may be useful in the diagnosis and/or
CC   treatment of cancer, leukaemia, nervous system disorders, arthritis and
CC   inflammation.
CC   Note: Records for SEQ ID NO 2110 (AAK52581), 2111 (AAK52582) and 3666
CC   (AAM80020) are omitted as the relevant pages from the sequence listing
CC   were missing at the time of publication.
XX
SQ   Sequence   533 AA;


  Query Match             7.3%;  Score 174.5;  DB 22;  Length 533;
  Best Local Similarity   20.2%;  Pred. No. 9.7e-06;
  Matches   86;  Conservative   84;  Mismatches  155;  Indels  101;  Gaps   15;

Qy      30 HLQCLIQSFETAPSRTCPQCRIQVG--------KRTIIN---KLFFDLAQEE-------- 70
             |:: | :|  ||  :     : :|         | |::|   |   |:|:|:
Db      15 hievlkesl-takeqraailqtevdalrlrleeketmlnkktkqiqdmaeekgtqageih 73

Qy      71 --ENVLDRE-----FLKNELDNVRAQLSQKDKEKRDSQVIIDTLRDTLEERNATVVSLQQ 123
             :::|| :      |: :::|:: ||  |:|:    :  : :|:      :  : :|::
Db      74 dlkdmldvkerkvnvlqkkienlqeqlrdkekqmsslkervkslqadttntdtalttlee 133

Qy     124 ALGKAEMLCSTLKKQMKYLEQQQDETKQAQEEAGRLRSKMKTMEQIELLLQSQLPEVEEM 183
```

```
          || : |     ||      ||:  : :: |||    :  :| :::   |||  | | |
Db    134 alaekertierlk------eqrdrderekqeeidnykkdlkdlkekvsllqgdlsekeas 187

Qy    184 IRDMGVGQS-----------------AVEQLAVYCV----SLKKEYENLKEARKASGEV 221
          : |:    |                 |:||    |:     ||| :|   ||| || |:
Db    188 lldlkehasslassglkkdsrlktleialeqkkeeclkmesqlkkaheaalear-aspem 246

Qy    222 ADK---LRKDLFSSRSKLQTVYSELDQAKLELKSAQKDLQSADKEIMSL----------- 267
          :|:   | :::   : :     :|:|:    ||  : :    ||:|  |
Db    247 sdriqhlereitrykdesskaqaevdrlleilkevenekndkdkkiaelesltsrqvkdq 306

Qy    268 --------------KKKLTMLQETL----NLPPVASETVDRLVLESPAPVEVNLKLRRP 308
                       ||   ||:|      ||   : :  | |  :     |:
Db    307 nkkvanlkhkeqvekkksaqmleearrrednlndssqqlqdslrkkddrieel-----ee 361

Qy    309 SFRDDIDLNATFDV---DTPPARPSSSQHGYYEKLCLEKSHSPIQDVPKKICKGPR---- 361
          : |: : : |  ::       || :: :      : :||    :: :  |:    :
Db    362 alresvqitaeremvlaqeesartnaekqveellmamekvkqelesmkaklsstqqslae 421

Qy    362 KESQLS 367
          ||: |:
Db    422 kethlt 427


RESULT  10
ABG03671
ID   ABG03671 standard; Protein; 463 AA.
XX
AC   ABG03671;
XX
DT   13-FEB-2002  (first entry)
XX
DE   Novel human diagnostic protein #3662.
XX
KW   Human; chromosome mapping; gene mapping; gene therapy; forensic;
KW   food supplement; medical imaging; diagnostic; genetic disorder.
XX
OS   Homo sapiens.
XX
PN   WO200175067-A2.
XX
PD   11-OCT-2001.
XX
PF   30-MAR-2001; 2001WO-US08631.
XX
PR   31-MAR-2000; 2000US-0540217.
PR   23-AUG-2000; 2000US-0649167.
XX
PA   (HYSE-) HYSEQ INC.
XX
PI   Drmanac RT,  Liu C,  Tang YT;
XX
DR   WPI; 2001-639362/73.
DR   N-PSDB; AAS67858.
XX
PT   New isolated polynucleotide and encoded polypeptides, useful in
PT   diagnostics, forensics, gene mapping, identification of mutations
PT   responsible for genetic disorders or other traits and to assess
PT   biodiversity  -
XX
PS   Claim 20; SEQ ID No 34030; 103pp; English.
XX
CC   The invention relates to isolated polynucleotide (I) and
CC   polypeptide (II) sequences. (I) is useful as hybridisation probes,
CC   polymerase chain reaction (PCR) primers, oligomers, and for chromosome
CC   and gene mapping, and in recombinant production of (II). The
CC   polynucleotides are also used in diagnostics as expressed sequence tags
CC   for identifying expressed genes. (I) is useful in gene therapy techniques
CC   to restore normal activity of (II) or to treat disease states involving
CC   (II). (II) is useful for generating antibodies against it, detecting or
CC   quantitating a polypeptide in tissue, as molecular weight markers and as
CC   a food supplement. (II) and its binding partners are useful in medical
CC   imaging of sites expressing (II). (I) and (II) are useful for treating
CC   disorders involving aberrant protein expression or biological activity.
CC   The polypeptide and polynucleotide sequences have applications in
CC   diagnostics, forensics, gene mapping, identification of mutations
CC   responsible for genetic disorders or other traits to assess biodiversity
CC   and to produce other types of data and products dependent on DNA and
CC   amino acid sequences. ABG00010-ABG30377 represent novel human
CC   diagnostic amino acid sequences of the invention.
CC   Note: The sequence data for this patent did not appear in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence   463 AA;


  Query Match             7.3%;  Score 174;  DB 22;  Length 463;
  Best Local Similarity   24.2%;  Pred. No. 8.7e-06;
  Matches   78;  Conservative   52;  Mismatches  130;  Indels   62;  Gaps   11;

Qy     29 FHLQCLIQSFETAPSRTCPQCRIQVGKRTIINKLFFDLAQEEENVLDREFLKNELDNVRA 88
          | || |::    |        | || : |  ::    || :   :| | |: : ||  |
Db    126 felqalleeerka------yrnqveest--kqiqvlqaqwqrfhidtenlreqkdneia 176

Qy     89 QLSQKDKEKRDSQVII-DTLRDTLEERNATVVSLQQALGK--AEM-----LCSTLKKQMK 140
                :    ||   ::         ||:  : |||: | |  ||:       |  :|::
Db    177 sardelhsardemwlvhqaaakvaserdtdiaslqeelkkvraelerwrkaaseyekevt 236

Qy    141 YL-----------EQQQDETKQAQEEAGRLRSKMKTME-------QIELLLQSQLPEVE 181
           |           :|||:|  : | |  :|| :   :|       :  :|| |:|   |
Db    237 slqnsfqlrcqqcedqqreeasrlqgeleklrkewnaletechslkrenvllsselqrqe 296

Qy    182 -----------EMIRDMGVGQSAVEQLAVYCVSLKKEYENLKEARKASGEVADKLRKDLF 230
                     |:  |: : | : ::|     |||:::       |     |:   ||:
Db    297 kelhnsqkqsleltsdlsilqmsrkelenqvgslkeqhlrdsadlktllskaenqakdvq 356

Qy    231 SSRSKLQTVYSELDQAKLELKSAQKDLQSADKEIMSLKKKLTMLQETLNLPPVASETVDR 290
            | ||| |||   ||: :  ::: ||   |:   |  | :|:|  | | :
Db    357 keyektqtvlsel---klkfemteqekqsitdelkqcknnlkllrekgnnpsil------ 407

Qy    291 LVLESPAPVEVNLKLRRPSFRD 312
             | |  ::  :  | | |
Db    408 ----qpvparihrpi--pgfpd 423


RESULT  11
AAB69070
ID   AAB69070 standard; Protein; 1374 AA.
XX
AC   AAB69070;
XX
DT   19-APR-2001  (first entry)
XX
DE   Human male enhanced antigen-2 (MEA-2) protein sequence SEQ ID NO:2.
XX
KW   Human; male enhanced antigen-2; MEA-2; identification; spermatogenesis;
KW   spermatogenesis disease; chromosome marker; pancreatic cancer.
XX
OS   Homo sapiens.
XX
PN   JP2000316580-A.
XX
PD   21-NOV-2000.
XX
PF   30-APR-1999;   99JP-0125196.
XX
PR   30-APR-1999;   99JP-0125196.
XX
PA   (ITOH-) ITO HAM KK.
XX
DR   WPI; 2001-128256/14.
DR   N-PSDB; AAF32508.
XX
PT   A new protein, human male-enhanced antigen-2, useful for detecting
PT   spermatogenesis diseases  -
```

```
XX
PS   Claim 1; Page 12-15; 21pp; Japanese.
XX
CC   The present sequence represents the human male enhanced antigen-2
CC   (MEA-2). The present invention also described an antibody specific for
CC   the MEA-2 protein. The antibody can be used for the identification of a
CC   gene causing diseases related to spermatogenesis. The MEA-2 nucleotide
CC   sequence is useful as a chromosome marker, and in the detection of
CC   pancreatic cancer.
XX
SQ   Sequence   1374 AA;


  Query Match             7.2%;  Score 172.5;  DB 22;  Length 1374;
  Best Local Similarity   24.7%;  Pred. No. 5.2e-05;
  Matches   72;  Conservative   57;  Mismatches  120;  Indels   43;  Gaps    9;

Qy      35 IQSFETAPSRTCPQCRIQVGKRTIINKLFFDLAQEEENVLDREFLKNELD------NVRA 88
           |:  | :  :    :   : || | : :   | :|  ::|:    | | |       |:|
Db    1084 ikrleesnkklalelehekgkltglgqsnaal-rehnsiletalakreadlvqlnlqvqa 1142

Qy      89 QLSQKDKEKRDSQVIIDTLRDTLEERNATVVSLQQALGKAEMLCSTLKKQMKYLEQQQDE 148
           | :|::| |  : ::  |: :||:    | ||:: :  |::     ::  |    :  |
Db    1143 vlqrkeeedrqmkhlvqalqaslekekekvnslkeqvaaakveaghnrrhfkaaslelse 1202

Qy     149 TK-------------QAQEEAGRLRSKMKTME----QIEL--------LLQSQLPEVEEM 183
           |              ||: :  ::|    : |    | ||        ||| ||   :|
Db    1203 vkkelqakehlvqklqaeaddlqiregkhsqeiaqfqaelaearaqlqllqkql---deq 1259

Qy     184 IRDMGVGQSAVEQLAVYCVSLKKEYENLKEARKASGEVADKLRKDLFSSRSKLQTVYSEL 243
           :    ||   :| |       ::| ::||:    : :     ||:|   :  || | |||
Db    1260 lskqpvgnqemenlkwevdqkereiqslkqqldlteqqg---rkeleglqqllqnvksel 1316

Qy     244 DQAKLELKSAQKDLQSADKEIMSLKKKL-TMLQET----LNLPPVASETVDR 290
           : |: :|   |||      ::  ||  : |:||:     |:|   |::|| |
Db    1317 emaqedlsmtqkdkfmlqakvselknnmktllqqnqqlkldlrrgaaktvlr 1368


RESULT  12
ABB58673
ID   ABB58673 standard; Protein; 1456 AA.
XX
AC   ABB58673;
XX
DT   26-MAR-2002  (first entry)
XX
DE   Drosophila melanogaster polypeptide SEQ ID NO 2811.
XX
KW   Drosophila; developmental biology; cell signalling; insecticide;
KW   pharmaceutical.
XX
OS   Drosophila melanogaster.
XX
PN   WO200171042-A2.
XX
PD   27-SEP-2001.
XX
PF   23-MAR-2001; 2001WO-US09231.
XX
PR   23-MAR-2000; 2000US-191637P.
PR   11-JUL-2000; 2000US-0614150.
XX
PA   (PEKE ) PE CORP NY.
XX
PI   Venter JC,  Adams M,  Li PWD,  Myers EW;
XX
DR   WPI; 2001-656860/75.
DR   N-PSDB; ABL02776.
XX
PT   New isolated nucleic acid detection reagent for detecting 1000 or more
PT   genes from Drosophila and for elucidating cell signalling and cell-cell
PT   interactions -
XX
PS   Disclosure; SEQ ID NO 2811; 21pp + Sequence Listing; English.
XX
CC   The invention relates to an isolated nucleic acid detection reagent
CC   capable of detecting 1000 or more genes from Drosophila. The invention is
CC   useful in developmental biology and in elucidating cell signalling and
CC   cell-cell interactions in higher eukaryotes for the development of
CC   insecticides, therapeutics and pharmaceutical drugs. The invention
CC   discloses genomic DNA sequences (ABL16176-ABL30511), expressed DNA
CC   sequences (ABL01840-ABL16175) and the encoded proteins
CC   (ABB57737-ABB72072).
CC   The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence   1456 AA;


  Query Match             7.2%;  Score 170.5;  DB 22;  Length 1456;
  Best Local Similarity   20.1%;  Pred. No. 8.3e-05;
  Matches  116;  Conservative   97;  Mismatches  202;  Indels  163;  Gaps   22;

Qy      15 DHSRDVAAIH---CGHTFHLQCLIQSFETAPSRTCPQCRIQVGKRTIINKLFFDLAQEEE 71
           |: | :| :    |    |   |    |        : |::   | |  |    |    :
Db      55 dyqrhiavlkeslcakeehynmlqtdveem------rarleeknrliekktqgtl----q 104

Qy      72 NVLDREFLKNELDNVRAQLSQKDKEKRDSQVIIDTLRDTLEERN---------------- 115
           | :|  | :||  ::  :  ||::    |  |: | | |:|::
Db     105 tvqernrltseltelkdhmdikdrkisvlqrkienledllkekdnqvdmararlsamqah 164

Qy     116 -----ATVVSLQQALGKAEMLCSTLKKQMKYLEQQQDETKQ--------------AQEE 155
                : ||::|:|  |   : |: |    | :: | :                 |: |
Db     165 hsssegaltsleeaigdkekqmaqlrdqrdraehekqeerdlherevadykiklraaese 224

Qy     156 AGRLRSKMK----TMEQIELLL---QSQL----PEVEEMIRDMGVGQSAVEQLAVYCVSL 204
             :|:::::      |::|: |   ||:|     |:|:   :||   :  |        |
Db     225 veklqtrleravtererleikleasqselgkskaelekatcemgrssadwestkqriarl 284

Qy     205 KKEYENLKEARKAS----------------GEVADKLRKDLFSSRSKLQTVYSELDQA 246
           : | | ||   : |                  | |||   :|  ::::|:   |: ::|
Db     285 elenerlkhdlersqttfgrttmttsqeldraqeradkasaelrrtqaelrvtqsdaera 344

Qy     247 KLELKSAQKDLQSADKEIMSLKKKLTML---QETLNLP-PVASETVDRLVLESPAPVEVN 302
           : |  : |: |: :  |:  || ||      ||:|      |   | |:  :
Db     345 reeaaalqekleksqgevyrlkaklenaqgeqeslrqelekaqsgvsrihadrdrafsev 404

Qy     303 LKLRRPSFRDDIDLNATFDVDTPPARPSSSQHGYYEKL--CLEKSHSPI---QDVPKKIC 357
           |::    |    |             |  ||   |||   |:|: : :   ||   | |
Db     405 ekikeemertqatlg----------ksqlqh---eklqnsldkaqnevdhlqdkldkac 450

Qy     358 KGPRK---------------ESQLSLG-GQSCAGEPDEELVGAFPIFVRNAI------LG 395
             |:                 :|||    ||:   : : | :      :|  :      ||
Db     451 tenrrlvlekekltydydnlqsqldkalgqaarmqkeretlsldtdrireklektqvqlg 510

Qy     396 QKQPKR-----------PRSESSCS--------KDVVRTGFDGLGGRTKFIQPTDTVMIR 436
           : | :|            ||||: :         :: ::|  : |  |
Db     511 riqkerdqfsdeletlkersesaqtllmkaardreamqtdlevlker------------- 557

Qy     437 PLPVKPKTKVKQRVRVK-----TVPSLFQAKLDTFLWS 469
                :    ::|:::::     |   : : |||  |::
Db     558 ---yekshaiqqklqmerddavteveilkekldkalya 592


RESULT  13
ABB59033
ID   ABB59033 standard; Protein; 951 AA.
XX
AC   ABB59033;
XX
DT   26-MAR-2002  (first entry)
XX
DE   Drosophila melanogaster polypeptide SEQ ID NO 3891.
XX
KW   Drosophila; developmental biology; cell signalling; insecticide;
```

```
KW   pharmaceutical.
XX
OS   Drosophila melanogaster.
XX
PN   WO200171042-A2.
XX
PD   27-SEP-2001.
XX
PF   23-MAR-2001; 2001WO-US09231.
XX
PR   23-MAR-2000; 2000US-191637P.
PR   11-JUL-2000; 2000US-0614150.
XX
PA   (PEKE ) PE CORP NY.
XX
PI   Venter JC,  Adams M,  Li PWD,  Myers EW;
XX
DR   WPI; 2001-656860/75.
DR   N-PSDB; ABL03136.
XX
PT   New isolated nucleic acid detection reagent for detecting 1000 or more
PT   genes from Drosophila and for elucidating cell signalling and cell-cell
PT   interactions -
XX
PS   Disclosure; SEQ ID NO 3891; 21pp + Sequence Listing; English.
XX
CC   The invention relates to an isolated nucleic acid detection reagent
CC   capable of detecting 1000 or more genes from Drosophila. The invention is
CC   useful in developmental biology and in elucidating cell signalling and
CC   cell-cell interactions in higher eukaryotes for the development of
CC   insecticides, therapeutics and pharmaceutical drugs. The invention
CC   discloses genomic DNA sequences (ABL16176-ABL30511), expressed DNA
CC   sequences (ABL01840-ABL16175) and the encoded proteins
CC   (ABB57737-ABB72072).
CC   The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence   951 AA;

  Query Match             7.1%;  Score 170;  DB 22;  Length 951;
  Best Local Similarity   20.9%;  Pred. No. 5e-05;
  Matches   94;  Conservative   91;  Mismatches  157;  Indels  108;  Gaps   19;

Qy      72 NVLDR-EFLKNELDNVRAQLSQKDKEKRDSQVIID----TLRDTLEERNATVVSLQQALG 126
           | |||   :| ||       |  | :| |  : :::     ||   :: | ::| | : |
Db     333 npldrvghikqelyralgnlknkreevrrlekllleernqelrvlrdqenqslvql-etln 391

Qy     127 KAEMLCSTLKKQMKYLEQQQDETKQAQEEAGRLRSKMKTMEQIELLLQSQLPEVEEMIRD 186
           : :|    |: ::| ::|: :| |   ::   : |:: ::      |: :  ::||
Db     392 egkm---rlenkvkamqqeleeqkhrsqqesdvhsqlnsivaerdalrekrqqiee---- 444

Qy     187 MGVGQSAVEQLAVYCVSLKKEYENLKEARK--ASGEVADKLR----------KDLFSSRS 234
                 :|||     ||:: |: | :  :   : | || ||          :|  |
Db     445 ------dleqlkqqneslqrnydqlsqenrqlrtretadnlrlelerhkillrdsqseve 498

Qy     235 KLQTVYSELDQAKLELKSAQKDLQSAD--KEIMSLKKKLTMLQETLNLPPVASETVDRLV 292
           :|: :||::   |  |    : |: :|  ||:   :: |  :|  | |  : || : :|:
Db     499 rlkklysdiatdkeslgyelrklresdtlkelqdqrqnlatvqrnlqlaemkseelkkll 558

Qy     293 LESPAPVEVNLK-LRRPSFRD----------------------------DIDLNATFDV 322
                 | :|: ||: | |:                             :| |    :|
Db     559 eteklsherdlqalrqrserekreeavavakessencskciesiaeitkaeiqllklqnv 618

Qy     323 DTPPARP-SSSQHGYYEKLCLEKSHSPIQDVPKKICKGPRKESQLSLGGQSCAGEPDEEL 381
           ::  |:     :|       ||:| :   :: :||    :::  :|          :|
Db     619 nsmqakelkeleh------aleqsknlqaemqekielsnkqdelis---------dlker 663

Qy     382 VGAFPIFVRNAILGQKQPKRPRSESSCSKDVVRTGFDGLGGRTKFIQPTDTVMIRPLPVK 441
              |  ::|       | :  : :: |:             ::  : |:|     | | |
Db     664 akqfeayir-------qqeehkqqnkctp----------spksnsvspsd-----psp-k 700

Qy     442 PKTK-----VKQRVRVKTVPSLFQAKLDTF 466
                 |:     ::|||   :  || |:|  |
Db     701 eltqnrirlieqrvr-demaklfaaelkrf 729


RESULT  14
AAM78985
ID   AAM78985 standard; Protein; 484 AA.
XX
AC   AAM78985;
XX
DT   06-NOV-2001  (first entry)
XX
DE   Human protein SEQ ID NO 1647.
XX
KW   Human; cytokine; cell proliferation; cell differentiation; gene therapy;
KW   vaccine; peptide therapy; stem cell growth factor; haematopoiesis;
KW   tissue growth factor; immunomodulatory; cancer; leukaemia;
KW   nervous system disorder; arthritis; inflammation.
XX
OS   Homo sapiens.
XX
PN   WO200157190-A2.
XX
PD   09-AUG-2001.
XX
PF   05-FEB-2001; 2001WO-US04098.
XX
PR   03-FEB-2000; 2000US-0496914.
PR   27-APR-2000; 2000US-0560875.
PR   20-JUN-2000; 2000US-0598075.
PR   19-JUL-2000; 2000US-0620325.
PR   01-SEP-2000; 2000US-0654936.
PR   15-SEP-2000; 2000US-0663561.
PR   20-OCT-2000; 2000US-0693325.
PR   30-NOV-2000; 2000US-0728422.
XX
PA   (HYSE-) HYSEQ INC.
XX
PI   Tang YT,  Liu C,  Drmanac RT,  Asundi V,  Zhou P,  Xu C,  Cao Y,  Ma Y;
PI   Zhao QA,  Wang D,  Wang J,  Zhang J,  Ren F,  Chen R,  Wang ZW;
PI   Xue AJ,  Yang Y,  Wejhrman T,  Goodrich R;
XX
DR   WPI; 2001-476283/51.
DR   N-PSDB; AAK52118.
XX
PT   Nucleic acids encoding polypeptides with cytokine-like activities,
PT   useful in diagnosis and gene therapy -
XX
PS   Claim 20; Page 3984-3985; 6221pp; English.
XX
CC   The invention relates to polynucleotides (AAK51456-AAK53435) and the
CC   encoded polypeptides (AAM78323-AAM80302) that exhibit activity elating to
CC   cytokine, cell proliferation or cell differentiation or which may induce
CC   production of other cytokines in other cell populations. The
CC   polynucleotides and polypeptides are useful in gene therapy, vaccines or
CC   peptide therapy. The polypeptides have various cytokine-like activities,
CC   e.g. stem cell growth factor activity, haematopoiesis regulating
CC   activity, tissue growth factor activity, immunomodulatory activity and
CC   activin/inhibin activity and may be useful in the diagnosis and/or
CC   treatment of cancer, leukaemia, nervous system disorders, arthritis and
CC   inflammation.
CC   Note: Records for SEQ ID NO 2110 (AAK52581), 2111 (AAK52582) and 3666
CC   (AAM80020) are omitted as the relevant pages from the sequence listing
CC   were missing at the time of publication.
XX
SQ   Sequence   484 AA;

  Query Match             7.1%;  Score 169.5;  DB 22;  Length 484;
  Best Local Similarity   20.3%;  Pred. No. 2.2e-05;
  Matches   75;  Conservative   72;  Mismatches  143;  Indels   79;  Gaps   11;
```

```
Qy      61 KLFFDLAQEEENVLDREFLKNELDNVRAQLSQKDKEKRDSQVIIDTLRDTLEERNATVVS 120
           |   |: : : ||| :     :::|:: ||  |:|:    :  : :|:      :  : :
Db      27 kdmldvkerkvnvlqk-----kienlqeqlrdkekqmsslkervkslqadttntdtaltt 81

Qy     121 LQQALGKAEMLCSTLKKQMKYLEQQQDETKQAQEEAGRLRSKMKTMEQIELLLQSQLPEV 180
           |::|| : |     ||      ||:  : :: |||    :  :| :::   |||  | |
Db      82 leealaekertierlk------eqrdrderekqeeidnykkdlkdlkekvsllqgdlsek 135

Qy     181 EEMIRDMGVGQS-----------------AVEQLAVYCV----SLKKEYENLKEARKAS 218
           |  : |:   |                  |:||    |:     ||| :|   ||| ||
Db     136 easlldlkehasslassglkkdsrlktleialeqkkeeclkmesqlkkaheaalear-as 194

Qy     219 GEVADK---LRKDLFSSRSKLQTVYSELDQAKLELKSAQKDLQSADKEIMSL-------- 267
            |::|:   | :::   : :     :|:|:    ||  : :    ||:|  |
Db     195 pemsdriqhlereitrykdesskaqaevdrlleilkeveneknddkdkkiaelesltsrqv 254

Qy     268 -----------------KKKLTMLQETL----NLPPVASETVDRLVLESPAPVEVNLKL 305
                           ||   ||:|      ||   : :  | |  :     |:
Db     255 kdqnkkvanlkhkeqvekkksaqmleearrrednlndssqqlqdslrkkddrieel---- 310

Qy     306 RRPSFRDDIDLNATFDV---DTPPARPSSSQHGYYEKLCLEKSHSPIQDVPKKICKGPR- 361
           : |: : : |  ::       || :: :      : :||    :: :  |:    :
Db     311 -eealresvqitaeremvlaqeesartnaekqveellmamekvkqelesmkaklsstqqs 369

Qy     362 ---KESQLS 367
              ||: |:
Db     370 laekethlt 378


RESULT  15
ABB61144
ID   ABB61144 standard; Protein; 1690 AA.
XX
AC   ABB61144;
XX
DT   26-MAR-2002  (first entry)
XX
DE   Drosophila melanogaster polypeptide SEQ ID NO 10224.
XX
KW   Drosophila; developmental biology; cell signalling; insecticide;
KW   pharmaceutical.
XX
OS   Drosophila melanogaster.
XX
PN   WO200171042-A2.
XX
PD   27-SEP-2001.
XX
PF   23-MAR-2001; 2001WO-US09231.
XX
PR   23-MAR-2000; 2000US-191637P.
PR   11-JUL-2000; 2000US-0614150.
XX
PA   (PEKE ) PE CORP NY.
XX
PI   Venter JC,  Adams M,  Li PWD,  Myers EW;
XX
DR   WPI; 2001-656860/75.
DR   N-PSDB; ABL05247.
XX
PT   New isolated nucleic acid detection reagent for detecting 1000 or more
PT   genes from Drosophila and for elucidating cell signalling and cell-cell
PT   interactions -
XX
PS   Disclosure; SEQ ID NO 10224; 21pp + Sequence Listing; English.
XX
CC   The invention relates to an isolated nucleic acid detection reagent
CC   capable of detecting 1000 or more genes from Drosophila. The invention is
CC   useful in developmental biology and in elucidating cell signalling and
CC   cell-cell interactions in higher eukaryotes for the development of
CC   insecticides, therapeutics and pharmaceutical drugs. The invention
CC   discloses genomic DNA sequences (ABL16176-ABL30511), expressed DNA
CC   sequences (ABL01840-ABL16175) and the encoded proteins
CC   (ABB57737-ABB72072).
CC   The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence   1690 AA;


  Query Match             7.1%;  Score 169;  DB 22;  Length 1690;
  Best Local Similarity   20.7%;  Pred. No. 0.00014;
  Matches   83;  Conservative   84;  Mismatches  158;  Indels   76;  Gaps   13;

Qy      50 RIQVGKRTIINKLFFDLAQEEENVLDREFLKNE--LDNVRAQLSQKDKEKRDSQVIIDTL 107
           :||: | :|  :|   | | |      ::  ::|  |  ::|| :||| |  :|   :  |
Db     724 qiqlekesieqql--alkqneledfqkkqsesevhlqeikaqntqkdfelvesgeslkkl 781

Qy     108 RDTLEERNATVVSLQQALGKAEMLCSTLKKQMK-YLEQQQDETKQAQEEAGRLRSKMKTM 166
           :  ||::      || ||         |||: :  ::::: | :| | ::    | :| :
Db     782 qqqleqktlghekIqaal-------eelkkeketiikekeqelqqlqsksaesesalkvv 834

Qy     167 E-QIELLLQSQLPEVEEMIRDMGVGQSAVEQLAVYCVSLKKEYE---------------- 209
           : |:| | |      ||  : :      : ||       : | :
Db     835 qvqleqlqqqaaasgeegsktvaklhdeisqlksqaeetqselkstqsnleakskqleaa 894

Qy     210 --NLKEARKASGEVAD---KLRKDLFSSRSKLQTVYSELDQAKLELKSAQKDLQSADKEI 264
             :|:|  | || : :   ||: ::  ::: | : :::::    :|::|   |:  :||
Db     895 ngsleeeakksghlleqitklksevgetqaalsschtdvesktkqleaanaalekvnkey 954

Qy     265 MSLKKKLTMLQETLNLPPVASETVDRLVLESPAPVEVN--LKLRRPSFRDDI-----DLN 317
           : : : ||: :       |  | |  |  |    :  |  :   | |:|     :|
Db     955 aesraeasdlqdkv------keitdtlhaelqaersssalhtklskfsdeiatghkelt 1008

Qy     318 ATFDV--------------------DTPPARPSSSQHGYYEKLCLEKSHSPIQDVPKKIC 357
           :  |                    |:  ::     |  ::   |:|   |::: :::
Db    1009 skadawsqemlqkekelqelrqqlqdsqdsqtklkaegerkeksfees---iknlqeevt 1065

Qy     358 KGPRKESQLSLGGQSCAGEPDEELVGAFPIFVRNAILGQKQ 398
           |   :  :|| | |:   :  | |       : || |  |:
Db    1066 kaktenlelstgtqttikdlqerle------itnaelqhke 1100


RESULT  16
ABB61173
ID   ABB61173 standard; Protein; 1690 AA.
XX
AC   ABB61173;
XX
DT   26-MAR-2002  (first entry)
XX
DE   Drosophila melanogaster polypeptide SEQ ID NO 10311.
XX
KW   Drosophila; developmental biology; cell signalling; insecticide;
KW   pharmaceutical.
XX
OS   Drosophila melanogaster.
XX
PN   WO200171042-A2.
XX
PD   27-SEP-2001.
XX
PF   23-MAR-2001; 2001WO-US09231.
XX
PR   23-MAR-2000; 2000US-191637P.
PR   11-JUL-2000; 2000US-0614150.
XX
PA   (PEKE ) PE CORP NY.
XX
PI   Venter JC,  Adams M,  Li PWD,  Myers EW;
XX
DR   WPI; 2001-656860/75.
DR   N-PSDB; ABL05276.
XX
PT   New isolated nucleic acid detection reagent for detecting 1000 or more
```

```
PT   genes from Drosophila and for elucidating cell signalling and cell-cell
PT   interactions -
XX
PS   Disclosure; SEQ ID NO 10311; 21pp + Sequence Listing; English.
XX
CC   The invention relates to an isolated nucleic acid detection reagent
CC   capable of detecting 1000 or more genes from Drosophila. The invention is
CC   useful in developmental biology and in elucidating cell signalling and
CC   cell-cell interactions in higher eukaryotes for the development of
CC   insecticides, therapeutics and pharmaceutical drugs. The invention
CC   discloses genomic DNA sequences (ABL16176-ABL30511), expressed DNA
CC   sequences (ABL01840-ABL16175) and the encoded proteins
CC   (ABB57737-ABB72072).
CC   The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence   1690 AA;


  Query Match             7.1%;  Score 169;  DB 22;  Length 1690;
  Best Local Similarity   20.7%;  Pred. No. 0.00014;
  Matches   83;  Conservative   84;  Mismatches  158;  Indels   76;  Gaps   13;

Qy      50 RIQVGKRTIINKLFFDLAQEEENVLDREFLKNE--LDNVRAQLSQKDKEKRDSQVIIDTL 107
           :||: | :|  :|   | | |     ::  ::|  |  ::|| :||| |  :|   :  |
Db     724 qiqlekesieqql--alkqneledfqkkqsesevhlqeikaqntqkdfelvesgeslkkl 781

Qy     108 RDTLEERNATVVSLQQALGKAEMLCSTLKKQMK-YLEQQQDETKQAQEEAGRLRSKMKTM 166
           :  ||::      || ||         |||: :  ::::: | :| | ::    | :| :
Db     782 qqqleqktlgheklqaal-------eelkkeketiikekeqelqqlqsksaesesalkvv 834

Qy     167 E-QIELLLQSQLPEVEEMIRDMGVGQSAVEQLAVYCVSLKKEYE---------------- 209
           : |:| | |      ||  : :      : ||       : | :
Db     835 qvqleqlqqqaaasgeegsktvaklhdeisqlksqaeetqselkstqsnleakskqleaa 894

Qy     210 --NLKEARKASGEVAD---KLRKDLFSSRSKLQTVYSELDQAKLELKSAQKDLQSADKEI 264
             :|:|  | || : :   ||: ::  ::: | : :::::    :|::|   |:  :||
Db     895 ngsleeeakksghlleqitklksevgetqaalsschtdvesktkqleaanaalekvnkey 954

Qy     265 MSLKKKLTMLQETLNLPPVASETVDRLVLESPAPVEVN--LKLRRPSFRDDI-----DLN 317
           : : : ||: :       |  | |  |  |    :  |  :   | |:|     :|
Db     955 aesraeasdlqdkv------keitdtlhaelqaerssssalhtklskfsdeiatghkelt 1008

Qy     318 ATFDV-------------------DTPPARPSSSQHGYYEKLCLEKSHSPIQDVPKKIC 357
           :  |                    |:  ::      |  ::   |:|   |::: :::
Db    1009 skadawsqemlqkekelqelrqqlqdsqdsqtklkaegerkeksfees---iknlqeevt 1065

Qy     358 KGPRKESQLSLGGQSCAGEPDEELVGAFPIFVRNAILGQKQ 398
           |   :  :|| | |:   :  | |       : || |  |:
Db    1066 kaktenlelstgtqttikdlqerle------itnaelqhke 1100


RESULT  17
AAW19540
ID   AAW19540 standard; Protein; 1325 AA.
XX
AC   AAW19540;
XX
DT   16-SEP-1997  (first entry)
XX
DE   Male-enhanced antigen-2.
XX
KW   Mouse; MEA-2; detecting mutation.
XX
OS   Mus musculus domesticus.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 305..320
FT                   /note= "Not shown in the specification"
XX
PN   JP09121869-A.
XX
PD   13-MAY-1997.
XX
PF   07-NOV-1995;   95JP-0311638.
XX
PR   07-NOV-1995;   95JP-0311638.
XX
PA   (ITOH-) ITO HAM KK.
XX
DR   WPI; 1997-314229/29.
DR   N-PSDB; AAT74034.
XX
PT   Male-enhanced antigen Mea-2 gene - especially from mouse, useful for
PT   detecting mutation(s)
XX
PS   Claim 8; Page 9-10; 13pp; Japanese.
XX
CC   The present sequence represents male-enhanced antigen-2 (MEA-2), which
CC   has been derived from a domestic mouse. The polynucleotide encoding
CC   the protein can be used for the detection of mutations affecting the
CC   MEA-2 gene.
XX
SQ   Sequence   1325 AA;


  Query Match             7.0%;  Score 168;  DB 18;  Length 1325;
  Best Local Similarity   20.6%;  Pred. No. 0.00012;
  Matches   77;  Conservative   65;  Mismatches  130;  Indels  102;  Gaps   13;

Qy      68 QEEENVLDREFLKNELD------NVRAQLSQKDKEKRDSQVIIDTLRDTLEERNATVVSL 121
           :|  ::|:    | | |       |:| | :|::| |  : ::  |: :||:    | ||
Db     966 rehnsiletalakreadlvqlnlqvqavlqrkeeedrqmkqlvqalqvslekekmevnsl 1025

Qy     122 QQALGKA-------------------------EMLCSTLKKQMKYLEQQ----QDET 149
           :: :  |                         | |  ||: ::  |: |      |
Db    1026 keqmaaarieaghnrrhfkaatlelsevkkelqakehlvqtlqaevdelqiqdgkhsqei 1085

Qy     150 KQAQEEAGRLRSKMKTMEQIELLLQSQLPEVEEMIRDMGVGQSAVEQLAVYCVSLKKEYE 209
           | | |    |::::       ||| :|   :| :     |   :| |       ::| :
Db    1086 aqfqtelaeartqlq-------llqkkl---deqmsqqptgsqemedlkweldqkereiq 1135

Qy     210 NLKEARKASGEVADKLRKDLFSSRSKLQTVYSELDQAKLELKSAQKDLQSADKEIMSLKK 269
           :||:   : :     :|:|  ::  |||:|||:  : :|   |||      ::  ||
Db    1136 slkqqldlteqqg---kkelegtqqtlqtikselemvqedlsetqkdkfmlqakvselkn 1192

Qy     270 KL-TMLQET--------------------------LNLP--PVASETVDRLVLESPA 297
           : |:||:                           : :|  || :  :: |:   ||
Db    1193 nmktllqqnqqlkldlrrgaakkkepkgesnssspatpikipdcpvpaslleellrpppa 1252

Qy     298 ----PVEVNLKLRRPSFRDDID-LNATFDVDTPPARPSSSQHGYYEKLCLEKSHSPIQDV 352
               |:: ||       : ::| |    :  |     | |     |    | :|
Db    1253 vskeplk-nlnnclqqlkqemdslqrqmeehtitvheslsswaqveaapaehah------ 1305

Qy     353 PKKICKGPRKESQL 366
                || :::|
Db    1306 -------prgdtkl 1312


RESULT  18
AAW94391
ID   AAW94391 standard; Protein; 1325 AA.
XX
AC   AAW94391;
XX
DT   14-APR-1999  (first entry)
XX
DE   Mouse male enhanced antigen 2.
XX
KW   Mouse; male enhanced antigen 2; Mea-2; Mus musculus domesticus;
KW   spermatogenesis; regulation; contraceptive; sterile; inhibition.
XX
OS   Mus sp.
XX
PN   JP11018622-A.
```

XX
PD 26-JAN-1999.
XX
PF 04-JUL-1997; 97JP-0179490.
XX
PR 04-JUL-1997; 97JP-0179490.
XX
PA (ITOH-) ITO HAM KK.
XX
DR WPI; 1999-160962/14.
DR N-PSDB; AAX04132.
XX
PT Regulation of spermatogenesis using Mea-2 gene information - using
PT anti-sense oligo- or poly:nucleotide(s), used for production of
PT contraceptives
XX
PS Claim 4; Page 8-12; 27pp; Japanese.
XX
CC The present sequence represents mouse male enhanced antigen 2 (Mea-2).
CC The present invention describes the regulation of spermatogenesis by
CC using Mea-2 information. A non-human living organism can have its
CC spermatogenesis inhibited by breakage of the whole or part of the Mea-2
CC gene. Also described are: (1) the creation of the spermatogenesis-
CC inhibited organism; (2) a drug composition containing an oligonucleotide
CC or polynucleotide containing base sequences that pair with at least part
CC of the Mea-2 gene and are able to inhibit the expression of Mea-2 gene;
CC and (3) the creation of an aimed gene-possessing organism using the
CC spermatogenesis inhibited organism. The organism is useful for producing
CC contraceptive drugs.
XX
SQ Sequence 1325 AA;

Query Match 7.0%; Score 168; DB 20; Length 1325;
Best Local Similarity 20.6%; Pred. No. 0.00012;
Matches 77; Conservative 65; Mismatches 130; Indels 102; Gaps 13;

```
Qy      68 QEEENVLDREFLKNELD------NVRAQLSQKDKEKRDSQVIIDTLRDTLEERNATVVSL 121
           :|  ::|:    | | |       |:| | :|::| |  : ::  |: :|||:    | ||
Db     966 rehnsiletalakreadlvqlnlqvqavlqrkeeedrqmkqlvqalqvslekekmevnsl 1025

Qy     122 QQALGKA---------------------------EMLCSTLKKQMKYLEQQ----QDET 149
           :: :  |                           | |  ||: ::  |: |      |
Db    1026 keqmaaarieaghnrrhfkaatlelsevkkelqakehlvqtlqaevdelqiqdgkhsqei 1085

Qy     150 KQAQEEAGRLRSKMKTMEQIELLLQSQLPEVEEMIRDMGVGQSAVEQLAVYCVSLKKEYE 209
           | | |    |::::       ||| :|   :| :     |   :| |       ::| :
Db    1086 aqfqtelaeartqlq------llqkkl---deqmsqqptgsqemedlkweldqkereiq 1135

Qy     210 NLKEARKASGEVADKLRKDLFSSRSKLQTVYSELDQAKLELKSAQKDLQSADKEIMSLKK 269
           :||:    : :     :|:|  ::  |||: |||:  : :|   |||      ::  ||
Db    1136 slkqqldlteqqg---kkelegtqqtlqtikselemvqedlsetqkdkfmlqakvselkn 1192

Qy     270 KL-TMLQET----------------------------LNLP--PVASETVDRLVLESPA 297
           : |:||:                             : :|  || :  :: |:   ||
Db    1193 nmktllqqnqqlkldlrrgaakkkepkgesnssspatpikipdcpvpaslleellrpppa 1252

Qy     298 ----PVEVNLKLRRPSFRDDID-LNATFDVDTPPARPSSSQHGYYEKLCLEKSHSPIQDV 352
               |:: ||       : ::| |    :  |     | |     |    | :|
Db    1253 vskeplk-nlnnclqqlkqemdslqrqmeehtitvheslsswaqveaapaehah------ 1305

Qy     353 PKKICKGPRKESQL 366
                || :::|
Db    1306 -------prgdtkl 1312
```

RESULT 19
AAU01768
ID AAU01768 standard; Protein; 934 AA.
XX
AC AAU01768;
XX
DT 18-JUL-2001 (first entry)

XX
DE Human secreted protein #47.
XX
KW Human; secreted protein; immunogen; antibody; diagnosis;
KW rheumatoid arthritis; hyperproliferative disorder; neoplasm;
KW cardiovascular disorder; cerebrovascular disorder; cerebral ischaemia;
KW angiogenesis; Alzheimer's disease; bacterial infection; viral infection;
KW fungal infection; corneal infection; wound healing; cell culture;
KW epithelial cell proliferation; skin ageing; transplantation;
KW tissue regeneration; chemotaxis; food additive.
XX
OS Homo sapiens.
XX
PN WO200123546-A1.
XX
PD 05-APR-2001.
XX
PF 26-SEP-2000; 2000WO-US26323.
XX
PR 27-SEP-1999; 99US-0155805.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Rosen CA, Ruben S, Komatsoulis GA;
XX
DR WPI; 2001-266150/27.
DR N-PSDB; AAS02399.
XX
PT Nucleic acids encoding 37 human secreted polypeptides, useful for
PT preventing, diagnosing and/or treating e.g. cancers, Parkinson's
PT disease and diabetic retinopathy -
XX
PS Disclosure; Page 460-463; 494pp; English.
XX
CC The sequence represents a human secreted protein of the invention. The
CC polynucleotides, polypeptides and antibodies raised against them are used
CC to prevent, treat or ameliorate a medical condition in e.g. humans, mice,
CC rabbits, goats, horses, cats, dogs, chickens or sheep. The
CC polynucleotides and antibodies are also used in diagnosing a pathological
CC condition or susceptibility to a pathological condition. The antibodies
CC can also be used in alleviating symptoms associated with the disorders
CC and in diagnostic immunoassays e.g. radioimmunoassays or enzyme linked
CC immunosorbent assays (ELISA). Disorders which are diagnosed or treated
CC include autoimmune diseases e.g. rheumatoid arthritis, hyperproliferative
CC disorders e.g. neoplasms of the breast or liver, cardiovascular disorders
CC e.g. cardiac arrest, cerebrovascular disorders e.g. cerebral ischaemia,
CC angiogenesis, nervous system disorders e.g. Alzheimer's disease,
CC infections caused by bacteria, viruses and fungi and ocular disorders
CC e.g. corneal infection. The polypeptides can also be used to aid wound
CC healing and epithelial cell proliferation, to prevent skin aging due to
CC sunburn, to maintain organs before transplantation, for supporting cell
CC culture of primary tissues, to regenerate tissues and in chemotaxis. The
CC polypeptides can also be used as a food additive or preservative to
CC increase or decrease storage capabilities.
XX
SQ Sequence 934 AA;

Query Match 7.0%; Score 167.5; DB 22; Length 934;
Best Local Similarity 22.8%; Pred. No. 7.9e-05;
Matches 91; Conservative 82; Mismatches 139; Indels 87; Gaps 21;

```
Qy      24 HCGHTF-HLQCLIQSFETAPSRTCPQCRIQVGKRTIINKLFFDLAQEEENVLDREF-LKN 81
           |  |:  | : |:| |     |   | |    |    |::   | :  : : |:   |:
Db     433 hlnhslshkeqllqef-----rellqyrdnsdktleaneml--leklrqrihdkavaler 485

Qy      82 ELDNVRAQLSQKDKEKRDSQVII-------DTLRDTLEERNATVVSLQQALG----KAEM 130
              :|   : | :|:|| |  :: :       : ||| |    ||: |::  |     : |
Db     486 aidekfsaleekekelrqlrlavrerdhdlerlrdvlssneatmqsmesllrakgleveq 545

Qy     131 LCSTLKKQMKYLEQQQDETK----QAQEEAGRLRSKMKTMEQIELLLQSQLPEVEE---- 182
           | ||  : :::|:::  |||    | ::|:         ::|::  |  :  |||:
Db     546 l-sttcqnlqwlkeem-etkfsrwqkeqes--------iiqqlqtslhdrnkevedlsat 595
```

```
Qy    183 MIRDMGVGQSAV-EQLAVYCVSLKKEYENLKEARKASGEVADKLRKDLFSSRSK------ 235
          ::  :| ||| : |:|   |  |:::              ::: :|| | |:|
Db    596 llcklgpgqseiaeel---cqrlqrk--------------ermlqdllsdrnkqvlehe 637

Qy    236 ------LQTVYSELDQAKLELKSAQKDLQSADKEIMSLKKKLTMLQETLNLPPVASETVD 289
               ||:| :   :::   :   : |   : |: :|:: |      ::  |:::: :
Db    638 meiqgllqsvstreqesqaaaeklvqalmernselqalrqylggrdslmsqapisnqqae 697

Qy    290 -----RLVLESPAPVEVNLKLRRPSFRDDIDLNATFDVDTPPARPSSSQHGYYEKLC-LE 343
              ||  ::         :: ||  |   | |  ||  |      |  |  : :  ||
Db    698 vtptgrlgkqtdqg-----smqipsrddstsltakedvsip-----rstlgdldtvagle 747

Qy    344 KSHSPIQDVPKKICKGPRKESQLSLGG-QSCAGEPDEEL 381
          |  |  ::  : : |  | |||: |   ||     :|||
Db    748 kelsnakeelelmakker-esqmelsalqsmmavqeeel 785


RESULT  20
AAE02246
ID   AAE02246 standard; Protein; 1017 AA.
XX
AC   AAE02246;
XX
DT   31-JUL-2001  (first entry)
XX
DE   Domestic mite Bt11 allergen polymorphic variant.
XX
KW   Mite; immunogenic protein; Bt allergen; therapy; atopic dermatitis;
KW   immediate hypersensitivity; systemic anaphylaxis; allergic rhinitis;
KW   asthma; antiallergic; antiinflammatory; immunosuppressive.
XX
OS   Blomia tropicalis.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 41
FT                   /note= "Encoded by TAG"
FT   Misc-difference 42
FT                   /note= "Encoded by TAG"
FT   Misc-difference 56
FT                   /note= "Encoded by TGA"
FT   Misc-difference 71
FT                   /note= "Encoded by TAA"
FT   Misc-difference 76
FT                   /note= "Encoded by TAG"
FT   Misc-difference 80
FT                   /note= "Encoded by TGA"
FT   Misc-difference 86
FT                   /note= "Encoded by TAA"
FT   Misc-difference 965
FT                   /note= "Encoded by TAA"
FT   Misc-difference 998
FT                   /note= "Encoded by TAA"
XX
PN   WO200130817-A1.
XX
PD   03-MAY-2001.
XX
PF   10-OCT-2000; 2000WO-AU01227.
XX
PR   26-OCT-1999;   99SG-0005313.
PR   18-JUL-2000; 2000AU-0008842.
PR   18-JUL-2000; 2000AU-0008844.
PR   18-JUL-2000; 2000AU-0008845.
XX
PA   (UYSI-) UNIV SINGAPORE NAT.
XX
PI   Chua KY,  Cheong N,  Lee BW;
XX
DR   WPI; 2001-308609/32.
DR   N-PSDB; AAD06245.
XX
PT   Novel immunogenic protein derived from house mite, Blomia tropicalis
PT   useful for treating and diagnosing conditions involving induction of
PT   immuneresponse to mite, such as allergic asthma, atopic dermatitis,
PT   rhinitis -
XX
PS   Claim 6; Fig 7; 230pp; English.
XX
CC   The present invention relates to immunogenic proteins, referred as Bt
CC   allergen, is derived from domestic mite, Blomia tropicalis. The specific
CC   Bt allergens of the invention includes Bt11, Bt10, Bt5 and BtA2. The
CC   immunogenic protein is useful for preventing, reducing or ameliorating
CC   Blomia tropicalis hypersensitivity condition such as atopic dermatitis,
CC   immediate hypersensitivity, systemic anaphylaxis, allergic rhinitis or
CC   asthma and for modulating an immune response directed to Bt allergen in
CC   a subject. The Bt allergens are also useful for detecting antibody
CC   directed to all or a part of Bt allergen in a biological sample from a
CC   subject. Antibodies to Bt allergens are also used as therapeutic or
CC   diagnostic agents, to screen Bt immunoassays and as antagonists to
CC   inhibit Bt activity under circumstances where temporary hypersensitivity
CC   inhibition is required. The present sequence is a protein encoded
CC   by Bt11 polymorphic variant.
XX
SQ   Sequence   1017 AA;


  Query Match             7.0%;  Score 167.5;  DB 22;  Length 1017;
  Best Local Similarity   22.8%;  Pred. No. 8.8e-05;
  Matches   64;  Conservative   60;  Mismatches   74;  Indels   83;  Gaps   11;

Qy     66 LAQEEENVLD--REFLKNELDN---VRAQLSQ---------KDKEKRDS---------QV 102
          |:||   ::    |: |  |||   :: |::|         :|:|:: | .        :|
Db    293 lsqenselikevhey-kisldnanhlkgqiaqqledtrhrledeerkrsslenhahtlev 351

Qy    103 IIDTLRDTLEERNATVVSLQQALGKA--------------------------------- 128
           :::|:  ||| :   : |:: | ||
Db    352 eleslkvqleeesearlelerqltkangdaaswkskyeaelqahvdeveelrrkmaqkis 411

Qy    129 ---EML------CSTLKKQMKYLEQQQD---ETKQAQEEAGRLRSKMKTMEQIELLLQS 175
             | |      || |:||   |: : :   | : ::|   |  |  ::  :|:| | |:|
Db    412 eyeeqleallnkcsalekqkarlqseaevlimdlekatahaqalekrvsqlekinldlks 471

Qy    176 QLPEVEEMIRDMGVGQSAVEQLAVYCVSLKK---EYENLKEARKASGEVADKLRKDLFSS 232
          :| ||  ::       :   : | |    |:|   ||| |:: ::|      ||  ||  :
Db    472 kleevsmll------eqtqkdlrvkiadlqklqheyeklrdqkealarenkkladdlaea 525

Qy    233 RSKLQTVYSELDQAKLELK---SAQKDLQSADKEIMSLKKK 270
          :|:|   :  : : ::|:|   : :::| :| ||  :|:|:
Db    526 ksqlndahrriheqeieikrlenereelaaaykeaetlrkq 566


RESULT  21
AAY71159
ID   AAY71159 standard; Protein; 2517 AA.
XX
AC   AAY71159;
XX
DT   08-SEP-2000  (first entry)
XX
DE   Human phosphodiesterase interacting protein, myomegalin.
XX
KW   Human; phosphodiesterase interacting protein; myomegalin; PDE; cAMP-PDE;
KW   cyclic adenosine monophosphate phosphodiesterase; antiasthmatic; asthma;
KW   antiinflammatory; antipsoriatic; dermatological; antibacterial; shock;
KW   analgesic; immunosuppressive; antiulcer; vasotropic; antiarthritic;
KW   antidiabetic; urticaria; antiallergic; antiarteriosclerotic; diagnosis;
KW   antirheumatic; treatment; inflammatory disease; psoriasis; arthritis;
KW   atherosclerosis; Crohn's disease; cystic fibrosis; chronic bronchitis;
KW   eosinophilic granuloma; proliferative skin disease; ulcerative colitis;
KW   reperfusion injury; atopic dermatitis; diabetes insipidus;
KW   conjunctivitis; adult respiratory distress syndrome; allergic rhinitis;
KW   arterial restenosis; ankylosing spondylitis; transplant rejection;
KW   graft versus host disease; chromosome 1p35.1-p36.
XX
OS   Homo sapiens.
```

```
XX
PN   WO200027861-A1.
XX
PD   18-MAY-2000.
XX
PF   12-NOV-1999;   99WO-US26860.
XX
PR   12-NOV-1998;   98US-0108255.
XX
PA   (STRD ) UNIV LELAND STANFORD JUNIOR.
XX
PI   Conti M,  Pahlke G;
XX
DR   WPI; 2000-376479/32.
DR   N-PSDB; AAD00769.
XX
PT   Polynucleotide encoding a phosphodiesterase (PDE) interacting
PT   polypeptide, useful for diagnosis and treatment of asthma, cystic
PT   fibrosis, Crohn's disease, and rheumatoid arthritis -
XX
PS   Disclosure; Fig 5; 77pp; English.
XX
CC   The present sequence is a phosphodiesterase (PDE)
CC   interacting protein, myomegalin obtained from two human clones
CC   KIAA0454 and KIAA0477. The myomegalin gene is located on human
CC   chromosome 1p35.1-p36. The protein modulates the functions and properties
CC   of PDEs, specifically  cAMP-PDEs, and also targets them to specific
CC   subcellular compartments. The present sequence
CC   can be used in the diagnosis and treatment of disease conditions
CC   associated with PDE activity. The diseases include asthma, cystic
CC   fibrosis, inflammatory airway disease, chronic bronchitis, eosinophilic
CC   granuloma, psoriasis, proliferative skin diseases, endotoxic shock,
CC   septic shock, ulcerative colitis, Crohn's disease, reperfusion injury,
CC   inflammatory arthritis, atopic dermatitis, urticaria, adult respiratory
CC   distress syndrome, diabetes insipidus, allergic rhinitis, allergic
CC   conjunctivitis, vernal conjunctivitis, arterial restenosis,
CC   atherosclerosis, inflammatory diseases associated with irritation and
CC   pain, rheumatoid arthritis, ankylosing spondylitis, transplant
CC   rejection and graft versus host disease, disease conditions associated
CC   with hypersecretion of gastric acid, and disease conditions in which
CC   cytokines are mediators.
XX
SQ   Sequence   2517 AA;
```

```
  Query Match             7.0%;  Score 167.5;  DB 21;  Length 2517;
  Best Local Similarity   22.8%;  Pred. No. 0.00031;
  Matches   91;  Conservative   82;  Mismatches  139;  Indels   87;  Gaps   21;

Qy      24 HCGHTF-HLQCLIQSFETAPSRTCPQCRIQVGKRTIINKLFFDLAQEEENVLDREF-LKN 81
           |  |:  | : |:| |     |   | |    |   |::   | :  : : |:   |:
Db     601 hlnhslshkeqllqef-----rellqyrdnsdktleaneml--leklrqrihdkavaler 653

Qy      82 ELDNVRAQLSQKDKEKRDSQVII-------DTLRDTLEERNATVVSLQQALG----KAEM 130
            :|   : | :|:|| |  :: :       : ||| |    ||: |::  |     : |
Db     654 aidekfsaleekekelrqlrlavrerdhdlerlrdvlssneatmqsmesllrakgleveq 713

Qy     131 LCSTLKKQMKYLEQQQDETK----QAQEEAGRLRSKMKTMEQIELLLQSQLPEVEE---- 182
           | ||  : :::|:::  |||    | ::|:         ::|::  |  :  |||:
Db     714 l-sttcqnlqwlkeem-etkfsrwqkeqes--------iiqqlqtslhdrnkevedlsat 763

Qy     183 MIRDMGVGQSAV-EQLAVYCVSLKKEYENLKEARKASGEVADKLRKDLFSSRSK------ 235
           ::  :| ||| : |:|   |  |:::          ::: :|| | |:|
Db     764 llcklgpgqseiaeel---cqrlqrk--------------ermlqdllsdrnkqvlehe 805

Qy     236 ------LQTVYSELDQAKLELKSAQKDLQSADKEIMSLKKKLTMLQETLNLPPVASETVD 289
                 ||:| :   :::   :   : |   : |: :|:: |      ::  |:::: :
Db     806 meiqgllqsvstreqesqaaaeklvqalmernselqalrqylggrdslmsqapisnqqae 865

Qy     290 -----RLVLESPAPVEVNLKLRRPSFRDDIDLNATFDVDTPPARPSSSQHGYYEKLC-LE 343
                ||  ::         :: ||  |   | |  ||  |      |  |  : :  ||
Db     866 vtptgrlgkqtdqg-----smqipsrddstsltakedvsip-----rstlgdldtvagle 915
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```
Qy     344 KSHSPIQDVPKKICKGPRKESQLSLGG-QSCAGEPDEEL 381
           |  |  ::  : : |  | |||: |   ||     :|||
Db     916 kelsnakeelelmakker-esqmelsalqsmmavqeeel 953
```

```
RESULT  22
ABB71396
ID   ABB71396 standard; Protein; 482 AA.
XX
AC   ABB71396;
XX
DT   26-MAR-2002  (first entry)
XX
DE   Drosophila melanogaster polypeptide SEQ ID NO 40980.
XX
KW   Drosophila; developmental biology; cell signalling; insecticide;
KW   pharmaceutical.
XX
OS   Drosophila melanogaster.
XX
PN   WO200171042-A2.
XX
PD   27-SEP-2001.
XX
PF   23-MAR-2001; 2001WO-US09231.
XX
PR   23-MAR-2000; 2000US-191637P.
PR   11-JUL-2000; 2000US-0614150.
XX
PA   (PEKE ) PE CORP NY.
XX
PI   Venter JC,  Adams M,  Li PWD,  Myers EW;
XX
DR   WPI; 2001-656860/75.
DR   N-PSDB; ABL15499.
XX
PT   New isolated nucleic acid detection reagent for detecting 1000 or more
PT   genes from Drosophila and for elucidating cell signalling and cell-cell
PT   interactions -
XX
PS   Disclosure; SEQ ID NO 40980; 21pp + Sequence Listing; English.
XX
CC   The invention relates to an isolated nucleic acid detection reagent
CC   capable of detecting 1000 or more genes from Drosophila. The invention is
CC   useful in developmental biology and in elucidating cell signalling and
CC   cell-cell interactions in higher eukaryotes for the development of
CC   insecticides, therapeutics and pharmaceutical drugs. The invention
CC   discloses genomic DNA sequences (ABL16176-ABL30511), expressed DNA
CC   sequences (ABL01840-ABL16175) and the encoded proteins
CC   (ABB57737-ABB72072).
CC   The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence   482 AA;
```

```
  Query Match             7.0%;  Score 167;  DB 22;  Length 482;
  Best Local Similarity   20.8%;  Pred. No. 3.4e-05;
  Matches   74;  Conservative   59;  Mismatches  101;  Indels  122;  Gaps   14;

Qy       7 CTICSDFFDHSRD-VAAIHCGHTFHLQCLIQSFETAPSRTCPQCR--------------- 50
           | :| :  | | | |  | | | ||  ||::  ::    ||| ||
Db     175 cpvclermdesvdgvltilcnhafhasclmkwgds----tcpvcrhvqtpglvedsvcme 230

Qy      51 -------------------------------------IQVGKRTIINKLFFDLAQEEEN 72
                                                 :|:|  ::     :| |   :|
Db     231 cegtdslwiclicghvgcgryqgghaaahfratnhtfamqlgtssv-----wdya--gdn 283

Qy      73 VLDREFLKNELDNVRAQLSQKDKEKRDSQVIIDTLRDTLEERNATVVSLQQALGKAEMLC 132
             : | | :|: |  :   || :|::|: ::      |:::            :    :|
Db     284 fvhrlf-qnksdg-klvasqtekdereeki------dsmq-----------meftyllt 323
```

```
Qy     133 STLKKQMKYLEQQQDETKQAQEE----AGRLRSKMKTMEQIELLLQSQLPEVEEMIRDMG 188
Db     324 sqldtqrkyyeermerleqewqnhkatandaktevselqqlqqnmqkekvnle------- 376

Qy     189 VGQSAVEQLAVYCVSLKKEYENLKEARKASGEVADKLRKDLFSSRSKLQTVYSELDQAKL 248
Db     377 ------rklaqhtaklkdvqkqlneer--------elskalqsnqsswhgkyklleqqyn 422

Qy     249 ELKSAQKDLQSADKEIMSLKKKLTML------QETLNLPPVASETVDRLVLESPAP 298
Db     423 efk------qthdaevtelkeqlrdimffldnqqklanteiaggtvtgiaekepdp 472


RESULT  23
ABB71125
ID   ABB71125 standard; Protein; 2067 AA.
XX
AC   ABB71125;
XX
DT   26-MAR-2002  (first entry)
XX
DE   Drosophila melanogaster polypeptide SEQ ID NO 40167.
XX
KW   Drosophila; developmental biology; cell signalling; insecticide;
KW   pharmaceutical.
XX
OS   Drosophila melanogaster.
XX
PN   WO200171042-A2.
XX
PD   27-SEP-2001.
XX
PF   23-MAR-2001; 2001WO-US09231.
XX
PR   23-MAR-2000; 2000US-191637P.
PR   11-JUL-2000; 2000US-0614150.
XX
PA   (PEKE ) PE CORP NY.
XX
PI   Venter JC,  Adams M,  Li PWD,  Myers EW;
XX
DR   WPI; 2001-656860/75.
DR   N-PSDB; ABL15228.
XX
PT   New isolated nucleic acid detection reagent for detecting 1000 or more
PT   genes from Drosophila and for elucidating cell signalling and cell-cell
PT   interactions -
XX
PS   Disclosure; SEQ ID NO 40167; 21pp + Sequence Listing; English.
XX
CC   The invention relates to an isolated nucleic acid detection reagent
CC   capable of detecting 1000 or more genes from Drosophila. The invention is
CC   useful in developmental biology and in elucidating cell signalling and
CC   cell-cell interactions in higher eukaryotes for the development of
CC   insecticides, therapeutics and pharmaceutical drugs. The invention
CC   discloses genomic DNA sequences (ABL16176-ABL30511), expressed DNA
CC   sequences (ABL01840-ABL16175) and the encoded proteins
CC   (ABB57737-ABB72072).
CC   The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence   2067 AA;


  Query Match             7.0%;  Score 167;  DB 22;  Length 2067;
  Best Local Similarity   20.5%;  Pred. No. 0.00026;
  Matches   93;  Conservative   76;  Mismatches  144;  Indels  140;  Gaps   15;

Qy      66 LAQEEENVLDREFLKNELDNVRAQLSQKDKEK--------RDSQVIIDTLRDTLE----- 112
Db    1655 leqeenkvlraql---elsqvrqeidrriqekeeefentrknhqraldsmqasleaeakg 1711


Qy     113 ---------ERNATVVSLQQALGKAEMLCSTLKKQMKYLEQQQDETKQAQEEAGRLRSKM 163
Db    1712 kaealrmkkkleadineleialdhankanaeaqknikryqqqlkdiqtaleeeqrardda 1771

Qy     164 KTMEQIEL------LLQSQLPEVEEMIRDMGVGQSAVEQLAVYCVSLKKEYENLKEARKA 217
Db    1772 r--eqlgiserranalqneleesrtlleqadrgrrqaeq------eladaheqlnevsaq 1823

Qy     218 SGEVADKLRKDLFSSRSKLQTVYSELDQ----------------AKL--ELKSAQKD 256
Db    1824 nasisaakrk----leselqtlhsdldellneaknseekakkamvdaarladelraeqdh 1879

Qy     257 LQSADKEIMSLKKKLTMLQETLNLPPV--------ASETVDRLVLE----------SPAP 298
Db    1880 aqtqeklrkaleqqikelqvrldeaeanalkggkkaiqkleqrvreleneldgeqrrhad 1939

Qy     299 VEVNL-----KLRRPSFRDDIDLNATFDVDTPPARPSSSQHGYYEKLCLEKSHSPIQDVP 353
Db    1940 aqknlrkserrvkelsfqseed----------------------rknhermqdlv 1972

Qy     354 KKICKGPR-------------------KESQLSLGGQSCAGEPDEELVGAFPIFVRNAI 393
Db    1973 dklqqkiktykrqieeaeeiaalnlakfrkaqqeleeaeeradlaeqaiskfrakgrags 2032

Qy     394 LGQKQPKRPRSESSCSKDVVRTGFDGLGGRTKF 426
Db    2033 vgrgaspaprats------vrpqfdglafpprf 2059


RESULT  24
AAE02245
ID   AAE02245 standard; Protein; 875 AA.
XX
AC   AAE02245;
XX
DT   31-JUL-2001  (first entry)
XX
DE   Domestic mite Btl1 allergen.
XX
KW   Mite; immunogenic protein; Bt allergen; therapy; atopic dermatitis;
KW   immediate hypersensitivity; systemic anaphylaxis; allergic rhinitis;
KW   asthma; antiallergic; antiinflammatory; immunosuppressive.
XX
OS   Blomia tropicalis.
XX
PN   WO200130817-A1.
XX
PD   03-MAY-2001.
XX
PF   10-OCT-2000; 2000WO-AU01227.
XX
PR   26-OCT-1999;   99SG-0005313.
PR   18-JUL-2000; 2000AU-0008842.
PR   18-JUL-2000; 2000AU-0008844.
PR   18-JUL-2000; 2000AU-0008845.
XX
PA   (UYSI-) UNIV SINGAPORE NAT.
XX
PI   Chua KY,  Cheong N,  Lee BW;
XX
DR   WPI; 2001-308609/32.
DR   N-PSDB; AAD06237.
XX
PT   Novel immunogenic protein derived from house mite, Blomia tropicalis
PT   useful for treating and diagnosing conditions involving induction of
PT   immuneresponse to mite, such as allergic asthma, atopic dermatitis,
PT   rhinitis -
XX
PS   Disclosure; Page 162-166; 230pp; English.
XX
CC   The present invention relates to immunogenic proteins, referred to as Bt
CC   allergens, derived from domestic mite (Blomia tropicalis). The specific
CC   Bt allergens of the invention includes Btl1, Btl0, Bt5 and BtA2. The
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CC   immunogenic protein is useful for preventing, reducing or ameliorating
CC   Blomia tropicalis hypersensitivity condition such as atopic dermatitis,
CC   immediate hypersensitivity, systemic anaphylaxis, allergic rhinitis or
CC   asthma and for modulating an immune response directed to Bt allergen in
CC   a subject. The Bt allergens are also useful for detecting antibody
CC   directed to all or a part of Bt allergen in a biological sample from a
CC   subject. Antibodies to Bt allergens are also used as therapeutic or
CC   diagnostic agents, to screen Bt immunoassays and as antagonists to
CC   inhibit Bt activity under circumstances where temporary hypersensitivity
CC   inhibition is required. The present sequence is Bt11 allergen.
XX
SQ   Sequence   875 AA;


  Query Match             7.0%;  Score 166.5;  DB 22;  Length 875;
  Best Local Similarity   22.8%;  Pred. No. 8.7e-05;
  Matches   64;  Conservative   60;  Mismatches   74;  Indels   83;  Gaps   11;

Qy      66 LAQEEENVLD--REFLKNELDN---VRAQLSQ---------KDKEKRDS---------QV 102
           |:||   ::    |: |  |||   :: |::|         :|:|:: |         :|
Db     204 lsqenselikevhey-kisldnanhlkgqiaqqledtrhrledeerkrsslenhahtlev 262

Qy     103 IIDTLRDTLEERNATVVSLQQALGKA---------------------------------- 128
            :::|:  ||| :   : |:: | ||
Db     263 eleslkvqleeesearlelerqltkangdaaswkskyeaelqahvdeveelrrkmaqkis 322

Qy     129 ---EML------CSTLKKQMKYLEQQQD----ETKQAQEEAGRLRSKMKTMEQIELLLQS 175
             | |       || |:||   |: : :    : ::|   |  |  ::  :|:| | |:|
Db     323 eygeqleallnkcsalekqkarlqsevevlimdlekatahaqalekrvsqlekinldlks 382

Qy     176 QLPEVEEMIRDMGVGQSAVEQLAVYCVSLKK---EYENLKEARKASGEVADKLRKDLFSS 232
           :| ||  ::      :   : | |    |:|   ||| |:: ::|      ||  ||  :
Db     383 kleevsmll------eqtqkdlrvkiadlqklqheyeklrdqkealarenkkladdlaea 436

Qy     233 RSKLQTVYSELDQAKLELK---SAQKDLQSADKEIMSLKKK 270
           :|:|   :  : : ::|:|   : :::| :| ||  :|:|:
Db     437 ksqlndahrriheqeieikrlenereelaaaykeaetlrkq 477


RESULT  25
AAE02242
ID   AAE02242 standard; Protein; 878 AA.
XX
AC   AAE02242;
XX
DT   31-JUL-2001  (first entry)
XX
DE   Domestic mite Bt11 allergen #7.
XX
KW   Mite; immunogenic protein; Bt allergen; therapy; atopic dermatitis;
KW   immediate hypersensitivity; systemic anaphylaxis; allergic rhinitis;
KW   asthma; antiallergic; antiinflammatory; immunosuppressive.
XX
OS   Blomia tropicalis.
XX
PN   WO200130817-A1.
XX
PD   03-MAY-2001.
XX
PF   10-OCT-2000; 2000WO-AU01227.
XX
PR   26-OCT-1999;   99SG-0005313.
PR   18-JUL-2000; 2000AU-0008842.
PR   18-JUL-2000; 2000AU-0008844.
PR   18-JUL-2000; 2000AU-0008845.
XX
PA   (UYSI-) UNIV SINGAPORE NAT.
XX
PI   Chua KY,  Cheong N,  Lee BW;
XX
DR   WPI; 2001-308609/32.
DR   N-PSDB; AAD06236.
XX
PT   Novel immunogenic protein derived from house mite, Blomia tropicalis
PT   useful for treating and diagnosing conditions involving induction of
PT   immuneresponse to mite, such as allergic asthma, atopic dermatitis,
PT   rhinitis  -
XX
PS   Claim 4; Fig 3; 230pp; English.
XX
CC   The present invention relates to immunogenic proteins, referred as Bt
CC   allergen, is derived from domestic mite, Blomia tropicalis. The specific
CC   Bt allergens of the invention includes Bt11, Bt10, Bt5 and BtA2. The
CC   immunogenic protein is useful for preventing, reducing or ameliorating
CC   Blomia tropicalis hypersensitivity condition such as atopic dermatitis,
CC   immediate hypersensitivity, systemic anaphylaxis, allergic rhinitis or
CC   asthma and for modulating an immune response directed to Bt allergen in
CC   a subject. The Bt allergens are also useful for detecting antibody
CC   directed to all or a part of Bt allergen in a biological sample from a
CC   subject. Antibodies to Bt allergens are also used as therapeutic or
CC   diagnostic agents, to screen Bt immunoassays and as antagonists to
CC   inhibit Bt activity under circumstances where temporary hypersensitivity
CC   inhibition is required. The present sequence is Bt11 allergen.
XX
SQ   Sequence   878 AA;


  Query Match             7.0%;  Score 166.5;  DB 22;  Length 878;
  Best Local Similarity   22.8%;  Pred. No. 8.7e-05;
  Matches   64;  Conservative   60;  Mismatches   74;  Indels   83;  Gaps   11;

Qy      66 LAQEEENVLD--REFLKNELDN---VRAQLSQ---------KDKEKRDS---------QV 102
           |:||   ::    |: |  |||   :: |::|         :|:|:: |         :|
Db     207 lsqenselikevhey-kisldnanhlkgqiaqqledtrhrledeerkrsslenhahtlev 265

Qy     103 IIDTLRDTLEERNATVVSLQQALGKA---------------------------------- 128
            :::|:  ||| :   : |:: | ||
Db     266 eleslkvqleeesearlelerqltkangdaaswkskyeaelqahvdeveelrrkmaqkis 325

Qy     129 ---EML------CSTLKKQMKYLEQQQD----ETKQAQEEAGRLRSKMKTMEQIELLLQS 175
             | |       || |:||   |: : :    : ::|   |  |  ::  :|:| | |:|
Db     326 eygeqleallnkcsalekqkarlqsevevlimdlekatahaqalekrvsqlekinldlks 385

Qy     176 QLPEVEEMIRDMGVGQSAVEQLAVYCVSLKK---EYENLKEARKASGEVADKLRKDLFSS 232
           :| ||  ::      :   : | |    |:|   ||| |:: ::|      ||  ||  :
Db     386 kleevsmll------eqtqkdlrvkiadlqklqheyeklrdqkealarenkkladdlaea 439

Qy     233 RSKLQTVYSELDQAKLELK---SAQKDLQSADKEIMSLKKK 270
           :|:|   :  : : ::|:|   : :::| :| ||  :|:|:
Db     440 ksqlndahrriheqeieikrlenereelaaaykeaetlrkq 480


RESULT  26
AAM78854
ID   AAM78854 standard; Protein; 1960 AA.
XX
AC   AAM78854;
XX
DT   06-NOV-2001  (first entry)
XX
DE   Human protein SEQ ID NO 1516.
XX
KW   Human; cytokine; cell proliferation; cell differentiation; gene therapy;
KW   vaccine; peptide therapy; stem cell growth factor; haematopoiesis;
KW   tissue growth factor; immunomodulatory; cancer; leukaemia;
KW   nervous system disorder; arthritis; inflammation.
XX
OS   Homo sapiens.
XX
PN   WO200157190-A2.
XX
PD   09-AUG-2001.
XX
PF   05-FEB-2001; 2001WO-US04098.
XX
PR   03-FEB-2000; 2000US-0496914.
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PR   27-APR-2000; 2000US-0560875.
PR   20-JUN-2000; 2000US-0598075.
PR   19-JUL-2000; 2000US-0620325.
PR   01-SEP-2000; 2000US-0654936.
PR   15-SEP-2000; 2000US-0663561.
PR   20-OCT-2000; 2000US-0693325.
PR   30-NOV-2000; 2000US-0728422.
XX
PA   (HYSE-) HYSEQ INC.
XX
PI   Tang YT,  Liu C,  Drmanac RT,  Asundi V,  Zhou P,  Xu C,  Cao Y,  Ma Y;
PI   Zhao QA,  Wang D,  Wang J,  Zhang J,  Ren F,  Chen R,  Wang ZW;
PI   Xue AJ,  Yang Y,  Wejhrman T,  Goodrich R;
XX
DR   WPI; 2001-476283/51.
DR   N-PSDB; AAK51987.
XX
PT   Nucleic acids encoding polypeptides with cytokine-like activities,
PT   useful in diagnosis and gene therapy -
XX
PS   Claim 20; Page 3813-3817; 6221pp; English.
XX
CC   The invention relates to polynucleotides (AAK51456-AAK53435) and the
CC   encoded polypeptides (AAM78323-AAM80302) that exhibit activity elating to
CC   cytokine, cell proliferation or cell differentiation or which may induce
CC   production of other cytokines in other cell populations. The
CC   polynucleotides and polypeptides are useful in gene therapy, vaccines or
CC   peptide therapy. The polypeptides have various cytokine-like activities,
CC   e.g. stem cell growth factor activity, haematopoiesis regulating
CC   activity, tissue growth factor activity, immunomodulatory activity and
CC   activin/inhibin activity and may be useful in the diagnosis and/or
CC   treatment of cancer, leukaemia, nervous system disorders, arthritis and
CC   inflammation.
CC   Note: Records for SEQ ID NO 2110 (AAK52581), 2111 (AAK52582) and 3666
CC   (AAM80020) are omitted as the relevant pages from the sequence listing
CC   were missing at the time of publication.
XX
SQ   Sequence   1960 AA;


  Query Match             7.0%;  Score 166;  DB 22;  Length 1960;
  Best Local Similarity   19.6%;  Pred. No. 0.00029;
  Matches   88;  Conservative   81;  Mismatches  145;  Indels  136;  Gaps   15;

Qy      48 QCRIQVGKRTIINKLFFDLAQEEENVLDREF-------------LKNELDNVRAQLSQK 93
           : ::|: |:    :|   ||: ||    :                |: :|:: ||  ::
Db    1073 elkmqlakke--eelqaalarveeeaaqknmalkkirelesqiselqedleserasrnka 1130

Qy      94 DKEKRDSQVIIDTLRDTLEERNATVVSLQQALGKAE----MLCSTLKKQMKYLEQQQDET 149
           :|:|||    :: |:  ||:   :  : |:   | |    :|  ||::: |  | |  |
Db    1131 ekqkrdlgeelealkteledtldstaaqqelrskreqevnilkktleeeaktheaqiqem 1190

Qy     150 KQAQEEA--------------GRLRSKMKTME--------QIELLLQS------QLPEV 180
           :|   :|                |    :|:|        ::::|||       :  :|
Db    1191 rqkhsqaveelaeqleqtkrvkanlekakqtlenergelanevkvllqgkgdsehkrkkv 1250

Qy     181 EEMIRDMGV----GQSAVEQLAVYCVSLKKEYENLKEARKASGEVADKLRKDLFSSRSKL 236
           |  :::: |    |:    :||    |: | :|:      |   : || ||  :  |:|
Db    1251 eaqlqelqvkfnegervrteladkvtklqveldnvtgllsqsdsksskltkdfsalesql 1310

Qy     237 QTVYSELDQAKLELKSAQKDLQSADKEIMSLKKKLTMLQETLNLPPVASETVDRLVLESP 296
           |               |: ||  ::: :||  ||  :::  |
Db    1311 q-------------dtqellqeenrqklslstklkqvedekn---------------- 1339

Qy     297 APVEVNLKLRRPSFRDDIDLNATFDVDTPPARPSSSQHGYYEKLCLEKS----HSPIQDV 352
                   |||: ::                ::|      |||     |: : |:
Db    1340 -----------sfreqle-----------eeeeakhn------lekqiatlhaqvadm 1369

Qy     353 PKKI---------CKGPRKESQLSLGGQSCAGEPDEELVGAFPIFVRNAILGQKQ----- 398
            ||:          :  ::: |  | | |   :  || | |:    :     |::
Db    1370 kkkmedsvgcletaeevkrklqkdlegls---qrheekvaaydklektktrlqqelddll 1426

Qy     399 -PKRPRSESSCSKDVVRTGFDGLGGRTKFI 427
```

```
              : :|:|: :  :  || |    | |
Db    1427 vdldhqrqsacnlekkqkkfdqllaeekti 1456


RESULT  27
ABG01716
ID   ABG01716 standard; Protein; 2143 AA.
XX
AC   ABG01716;
XX
DT   13-FEB-2002  (first entry)
XX
DE   Novel human diagnostic protein #1707.
XX
KW   Human; chromosome mapping; gene mapping; gene therapy; forensic;
KW   food supplement; medical imaging; diagnostic; genetic disorder.
XX
OS   Homo sapiens.
XX
PN   WO200175067-A2.
XX
PD   11-OCT-2001.
XX
PF   30-MAR-2001; 2001WO-US08631.
XX
PR   31-MAR-2000; 2000US-0540217.
PR   23-AUG-2000; 2000US-0649167.
XX
PA   (HYSE-) HYSEQ INC.
XX
PI   Drmanac RT,  Liu C,  Tang YT;
XX
DR   WPI; 2001-639362/73.
DR   N-PSDB; AAS65903.
XX
PT   New isolated polynucleotide and encoded polypeptides, useful in
PT   diagnostics, forensics, gene mapping, identification of mutations
PT   responsible for genetic disorders or other traits and to assess
PT   biodiversity  -
XX
PS   Claim 20; SEQ ID No 32075; 103pp; English.
XX
CC   The invention relates to isolated polynucleotide (I) and
CC   polypeptide (II) sequences. (I) is useful as hybridisation probes,
CC   polymerase chain reaction (PCR) primers, oligomers, and for chromosome
CC   and gene mapping, and in recombinant production of (II). The
CC   polynucleotides are also used in diagnostics as expressed sequence tags
CC   for identifying expressed genes. (I) is useful in gene therapy techniques
CC   to restore normal activity of (II) or to treat disease states involving
CC   (II). (II) is useful for generating antibodies against it, detecting or
CC   quantitating a polypeptide in tissue, as molecular weight markers and as
CC   a food supplement. (II) and its binding partners are useful in medical
CC   imaging of sites expressing (II). (I) and (II) are useful for treating
CC   disorders involving aberrant protein expression or biological activity.
CC   The polypeptide and polynucleotide sequences have applications in
CC   diagnostics, forensics, gene mapping, identification of mutations
CC   responsible for genetic disorders or other traits to assess biodiversity
CC   and to produce other types of data and products dependent on DNA and
CC   amino acid sequences. ABG00010-ABG30377 represent novel human
CC   diagnostic amino acid sequences of the invention.
CC   Note: The sequence data for this patent did not appear in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence   2143 AA;


  Query Match             7.0%;  Score 166;  DB 22;  Length 2143;
  Best Local Similarity   19.6%;  Pred. No. 0.00033;
  Matches   88;  Conservative   81;  Mismatches  145;  Indels  136;  Gaps   15;

Qy      48 QCRIQVGKRTIINKLFFDLAQEEENVLDREF-------------LKNELDNVRAQLSQK 93
           : ::|: |:    :|   ||: ||    :                |: :|:: ||  ::
```

```
Db   1155 elkmqlakke--eelqaalarveeeaaqknmalkkirelesqiselqedleserasrnka 1212

Qy     94 DKEKRDSQVIIDTLRDTLEERNATVVSLQQALGKAE----MLCSTLKKQMKYLEQQQDET 149
          :|:|||    :: |:  ||:   :  : |:   | |    :|  ||::: |  | |  |
Db   1213 ekqkrdlgeelealkteledtldstaaqqelrskreqevnilkktleeeaktheaqiqem 1272

Qy    150 KQAQEEA--------------GRLRSKMKTME--------QIELLLQS------QLPEV 180
          :|   :|                 |    :|:|        ::::|||       :  :|
Db   1273 rqkhsqaveelaeqleqtkrvkanlekakqtlenergelanevkvllqgkgdsehkrkkv 1332

Qy    181 EEMIRDMGV----GQSAVEQLAVYCVSLKKEYENLKEARKASGEVADKLRKDLFSSRSKL 236
          |  :::: |    |:    :||     |: | :|:       |   : || ||  :  |:|
Db   1333 eaqlqelqvkfnegervrteladkvtklqveldnvtgllsqsdsksskltkdfsalesql 1392

Qy    237 QTVYSELDQAKLELKSAQKDLQSADKEIMSLKKKLTMLQETLNLPPVASETVDRLVLESP 296
          |               |: ||  ::: :||  ||  :::  |
Db   1393 q--------------dtqellqeenrqklslstklkqvedekn---------------- 1421

Qy    297 APVEVNLKLRRPSFRDDIDLNATFDVDTPPARPSSSQHGYYEKLCLEKS----HSPIQDV 352
                    |||: ::                ::|       |||     |: : |:
Db   1422 -----------sfreqle-----------eeeeakhn------lekqiatlhaqvadm 1451

Qy    353 PKKI---------CKGPRKESQLSLGGQSCAGEPDEELVGAFPIFVRNAILGQKQ----- 398
           ||:          :  ::: |  | | |   :  || | |:    :     |::
Db   1452 kkkmedsvgcletaeevkrklqkdlegls---qrheekvaaydklektktrlqqelddll 1508

Qy    399 -PKRPRSESSCSKDVVRTGFDGLGGRTKFI 427
           : :|:|: :  :  || |    | |
Db   1509 vdldhqrqsacnlekkqkkfdqllaeekti 1538
```

RESULT 28
AAY01632
ID AAY01632 standard; Protein; 2954 AA.
XX
AC AAY01632;
XX
DT 22-JUN-1999 (first entry)
XX
DE Amino acid sequence of centromere-associated protein-E (CENP-E).
XX
KW CENP-E; centromere-associated protein-E; ATPase activity;
KW plus end-directed microtubule motor activity; chromosome congression;
KW microtubule binding activity; chromosome movement; mitosis;
KW cell proliferation; tumor; metastasis; vascular malfunction;
KW inflammatory disease; immune disease; angiogenesis; hypertension;
KW restenosis; fungal infection; selective herbicide; fungicide;
KW insecticide; plant growth regulator; activator; cancer cell marker.
XX
OS Xenopus sp.
XX
PN WO9913061-A1.
XX
PD 18-MAR-1999.
XX
PF 10-SEP-1998; 98WO-US19231.
XX
PR 11-SEP-1997; 97US-0058645.
XX
PA (REGC) UNIV CALIFORNIA.
XX
PI Cleveland DW, Goldstein LSB, Sakowicz R, Wood KW;
XX
DR WPI; 1999-229233/19.
DR N-PSDB; AAX26819.
XX
PT Centromere-associated protein-E and related nucleic acid
XX
PS Claim 5; Page 66-67; 77pp; English.
XX
CC The present sequence represents CENP-E (centromere-associated protein-E)
CC of Xenopus. The protein has at least one of plus end-directed microtubule
CC motor activity, ATPase (adenosine triphosphatase) activity and
CC microtubule binding activity. CENP-E is the motor that powers chromosome
CC movement toward microtubule plus ends and is essential for congression
CC of chromosomes during mitosis. Modulators of CENP-E can thus control
CC cell proliferation. Agents that modulate CENP-E activity are lead
CC therapeutic, bioagricultural and diagnostic agents, e.g. for treatment
CC of unwanted cell proliferation (typical of many examples are tumors and
CC metastases; vascular malfunction; inflammatory and immune diseases;
CC angiogenesis; hypertension; restenosis; and fungal infections), also as
CC plant-protection agents (selective herbicides, fungicides and
CC insecticides) and plant growth regulators or activators for improving
CC yields. CENP-E is also a diagnostic marker for dividing cells, including
CC cancer cells.
XX
SQ Sequence 2954 AA;

Query Match 6.9%; Score 165.5; DB 20; Length 2954;
Best Local Similarity 21.4%; Pred. No. 0.00057;
Matches 82; Conservative 68; Mismatches 127; Indels 107; Gaps 15;

```
Qy     34 LIQSFETAPSRTCPQCRIQVGKRT------------IINKLFFDLAQEEENVLDREFLK 80
          | ::   | |  ||   |   | |                :: :       |:| :|     |
Db   1584 laknlaiaasdncp---itqeketsadcvhpleekillleelhqktneqeklhe---k 1637

Qy     81 NELDNVRAQLSQKDKEKRDSQVIIDTLRDTLEERNATVVSLQQALGKAEMLCSTLKKQMK 140
          |||:  : :|  :           :: |  :: |  ::: |||      |    ||:||:
Db   1638 neleqaqvelkce----------vehlmksmieskssleslqhekhdteqqllalkqqmq 1687

Qy    141 YLEQQQDETKQAQE----EAGRLRSKM-----------------------KTMEQIELL 172
           : |:: | :|  |    |   |:  :                        | :|| :
Db   1688 vvtqekkelqqthehltaevdhlkenielglnfkneaqqkttkeqcllnenkeleqsqhr 1747

Qy    173 LQSQLPEVEEMIRDMGVGQSAVEQL---AVYCVSLKK-------EYENLKEARKASGEVA 222
          ||    |:||::: :   :||:| |       ::| :       | | || :::
Db   1748 lqc---eieelmkslkdkesaletlkeseqkvinlnqememvmlemeelknsqrtviaer 1804

Qy    223 DKLRKDLFSSRSKLQTVYSELDQAKLELKSAQKDLQSADKEIMSLKKKLTMLQETLNLPP 282
          |:|: ||   |  ::      |    :|: ||: ||    ::  |  ::::||| ::|
Db   1805 dqlqddl---resvemsietqd----dlrkaqealqqqkdkvqeltsqisvlqekisl-- 1855

Qy    283 VASETVDRLVLESPAPVEVNLKLRRPSFRDDIDLNATFDVDTPPARPSSSQHGYYE---- 338
               ::  :| : | |:  |     | |||::               | || : |
Db   1856 -----lenqmlynvatvketl-----serddln-------------qskqhlfseietl 1891

Qy    339 KLCLEKSHSPIQDVPKKICKGPRK 362
           | |::    ::   |     ||
Db   1892 slslkekefaleqaekdkadaark 1915
```

RESULT 29
AAM80122
ID AAM80122 standard; Protein; 690 AA.
XX
AC AAM80122;
XX
DT 06-NOV-2001 (first entry)
XX
DE Human protein SEQ ID NO 3768.
XX
KW Human; cytokine; cell proliferation; cell differentiation; gene therapy;
KW vaccine; peptide therapy; stem cell growth factor; haematopoiesis;
KW tissue growth factor; immunomodulatory; cancer; leukaemia;
KW nervous system disorder; arthritis; inflammation.
XX
OS Homo sapiens.
XX
PN WO200157190-A2.
XX
PD 09-AUG-2001.
XX
PF 05-FEB-2001; 2001WO-US04098.
XX
PR 03-FEB-2000; 2000US-0496914.

```
PR   27-APR-2000; 2000US-0560875.
PR   20-JUN-2000; 2000US-0598075.
PR   19-JUL-2000; 2000US-0620325.
PR   01-SEP-2000; 2000US-0654936.
PR   15-SEP-2000; 2000US-0663561.
PR   20-OCT-2000; 2000US-0693325.
PR   30-NOV-2000; 2000US-0728422.
XX
PA   (HYSE-) HYSEQ INC.
XX
PI   Tang YT,  Liu C,  Drmanac RT,  Asundi V,  Zhou P,  Xu C,  Cao Y,  Ma Y;
PI   Zhao QA,  Wang D,  Wang J,  Zhang J,  Ren F,  Chen R,  Wang ZW;
PI   Xue AJ,  Yang Y,  Wejhrman T,  Goodrich R;
XX
DR   WPI; 2001-476283/51.
DR   N-PSDB; AAK53255.
XX
PT   Nucleic acids encoding polypeptides with cytokine-like activities,
PT   useful in diagnosis and gene therapy -
XX
PS   Claim 20; Page 430; 6221pp; English.
XX
CC   The invention relates to polynucleotides (AAK51456-AAK53435) and the
CC   encoded polypeptides (AAM78323-AAM80302) that exhibit activity elating to
CC   cytokine, cell proliferation or cell differentiation or which may induce
CC   production of other cytokines in other cell populations. The
CC   polynucleotides and polypeptides are useful in gene therapy, vaccines or
CC   peptide therapy. The polypeptides have various cytokine-like activities,
CC   e.g. stem cell growth factor activity, haematopoiesis regulating
CC   activity, tissue growth factor activity, immunomodulatory activity and
CC   activin/inhibin activity and may be useful in the diagnosis and/or
CC   treatment of cancer, leukaemia, nervous system disorders, arthritis and
CC   inflammation.
CC   Note: Records for SEQ ID NO 2110 (AAK52581), 2111 (AAK52582) and 3666
CC   (AAM80020) are omitted as the relevant pages from the sequence listing
CC   were missing at the time of publication.
XX
SQ   Sequence   690 AA;


  Query Match             6.9%;  Score 164.5;  DB 22;  Length 690;
  Best Local Similarity   23.3%;  Pred. No. 9.1e-05;
  Matches  100;  Conservative   64;  Mismatches  129;  Indels  137;  Gaps   20;

Qy      64 FDLAQEEENVLDREFL----KNELDNVRAQLSQKDKEKRDSQVIIDTLRDTLEERNATVV 119
           :|  : | : |::| :    |:|:      :  |:: :   :|:      |||:   ||
Db     269 ydkvkserdaleqevielrrkheileashmiqtkerselskevv------tleq---tvt 319

Qy     120 SLQ---QALGKAEM----LCSTLKKQMKYLEQQQDETKQAQEE------AGRLRSKMK-- 164
            ||   : | :  |     |:  : ::: |: | :|:|:|:||      | |   | :
Db     320 llqkdkeylnrqnmelsvrcaheedrlerlqaqleeskkareemyekyvasrdhykteye 379

Qy     165 -----TMEQIELLLQSQLPEVEEMIRDMGVGQSAVEQLAVYCVSLKKEYENLKEARKASG 219
                 :||| |    :: ::    |:|                 ::|  ||:|||
Db     380 nklhdeleqirlktnqeidqlrnasrem---------------yerenrnlrear--dn 421

Qy     220 EVADKLR-----KDL----------------------FSSRSKLQTVYSE-------- 242
            ||:| |     ||                      |  :|||::  ||
Db     422 avaekeravmaekdalekhdqlldryrelqlsteskvteflhqsklksfeservqllqee 481

Qy     243 ----LDQAKLELKSAQKDLQSADKEIMSL----KKKLTML-------QETLNLPPVASET 287
               | | :|| :  || |:   ||  ||    :|::| |       |  |::     :
Db     482 tarnltqcqlecekyqkklevltkefyslqassekritelqaqnsehqarldiyekleke 541

Qy     288 VDRLVLESPAPVEVNLKLRRPSFRDDIDLNATFDVDTPPARPSSSQHGYYEKLCLEKSHS 347
           :| :::::| | :|   :  | |      |      |   |   | |     | |||  :|
Db     542 ldeiimqt-aeienedeaervlfsygyganvp---ttakrrlkqsvhlarrvlqlekqns 597

Qy     348 PIQDVPKKICKGPRKESQLSLGGQSCAGEPDEELVGAFPIFVR-----NAILGQ-KQPKR 401
            |           | |  | |  : |          | |     |::| | :|| |
Db     598 li-----------lkrsgtskgpsnta----------ftrslteansllnqtqqpyr 633

Qy     402 PRSESSCSKD 411
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```
               ||   :|
Db     634 yliesvrqrd 643


RESULT  30
AAB96332
ID   AAB96332 standard; Protein; 880 AA.
XX
AC   AAB96332;
XX
DT   29-OCT-2001  (first entry)
XX
DE   Putative P. abyssi ATPase involved in DNA repair #2.
XX
KW   Hyperthermophilic archaeon; hyperthermophilic protein.
XX
OS   Pyrococcus abyssi.
XX
PN   FR2792651-A1.
XX
PD   27-OCT-2000.
XX
PF   21-APR-1999;   99FR-0005034.
XX
PR   21-APR-1999;   99FR-0005034.
XX
PA   (CNRS ) CNRS CENT NAT RECH SCI.
PA   (IFRE-) IFREMER INST FR RECH EXPL MER.
XX
PI   Forterre P,  Thierry JC,  Prieur D,  Dietrich J,  Lecompte O;
PI   Querellou J,  Weissenbach J,  Saurin W,  Heilig R;
XX
DR   WPI; 2001-126236/14.
XX
PT   New nucleotide sequences isolated from Pyrococcus abyssi encode
PT   proteins useful in industry -
XX
PS   Claim 7; Pages 1003-1006; 1657pp; French.
XX
CC   The present invention relates to the genomic sequence of Pyrococcus
CC   abyssi (see AAF86431 and AAH41223-7) and P. abyssi proteins. P. abyssi is
CC   a hyperthermophilic archaeon, which is isolated from deep-sea
CC   hydrothermal vents. The present sequence is one such P. abyssi protein.
CC   The proteins of the present invention have various potential industrial
CC   uses, since the proteins are stable at very high temperatures, some up to
CC   110 degrees centigrade.
CC   Note: This patent is in the same patent family as WO200065062, which
CC   contains additional sequences as shown in AAB99132-AAB99143,
CC   AAH75903-AAH75920 and AAG66436.
XX
SQ   Sequence   880 AA;


  Query Match             6.9%;  Score 164.5;  DB 22;  Length 880;
  Best Local Similarity   21.9%;  Pred. No. 0.00013;
  Matches   61;  Conservative   65;  Mismatches  122;  Indels   31;  Gaps    7;

Qy      65 DLAQEEENVLDREFLKNELDNVRAQLSQKDKEKRDSQVIIDTLRDTLEERNATVVSLQQA 124
           :| :  ||| : | :| ::  :: |: :    |:  :  |  :  ::||: | :  |::
Db     226 elekvrenvkelesikgkiselkiqveklkgrkkgleekivqiersieekkakiseleei 285

Qy     125 LGKAEMLCSTLKKQMK---YLEQQQDETKQAQEEAGRLRSKMKTMEQIELLLQSQLPEVE 181
           :    |    |:  |   : :: : : :: ::|  :  |::| :|::    : :    |
Db     286 vkdipklqekekeyrklkgfrdeyesklrrlekelskweselkaieevikegekkkerae 345

Qy     182 EMIRDMGVGQSAVEQLAVYCVSL------KKEYENLKEARK--ASGEVADKL------RK 227
           |:   :   :  :|:|  |   |      :|: | ||   |  : ||| :||      |
Db     346 eireklseiekrleelkpyveeledakqvqkqierlkarlkglspgeviekleslekert 405

Qy     228 DLFSSRSKLQTVYSELDQAKLELKSAQKDLQSA-------DKEIMSLKKKLTMLQETLNL 280
           ::  :  :: |   :::| | |   | ::|: |        :|:    ||  | : || :
Db     406 eieeaikeittrigqmeqeknermkaieelrkakgkcpvcgrelteehkkelmerytlei 465
```

```
Qy    281 PPVASETVDRLVLESPAPVEVNL-----KLRRPSFRDDI 314
          :  |   :   |    : |||     |||  |   ||
Db    466 kkieeel--krtteeerklrvnlrkleiklrefsvmrdi 502
```

RESULT 31
ABG05140
ID ABG05140 standard; Protein; 808 AA.
XX
AC ABG05140;
XX
DT 13-FEB-2002 (first entry)
XX
DE Novel human diagnostic protein #5131.
XX
KW Human; chromosome mapping; gene mapping; gene therapy; forensic;
KW food supplement; medical imaging; diagnostic; genetic disorder.
XX
OS Homo sapiens.
XX
PN WO200175067-A2.
XX
PD 11-OCT-2001.
XX
PF 30-MAR-2001; 2001WO-US08631.
XX
PR 31-MAR-2000; 2000US-0540217.
PR 23-AUG-2000; 2000US-0649167.
XX
PA (HYSE-) HYSEQ INC.
XX
PI Drmanac RT, Liu C, Tang YT;
XX
DR WPI; 2001-639362/73.
DR N-PSDB; AAS69327.
XX
PT New isolated polynucleotide and encoded polypeptides, useful in
PT diagnostics, forensics, gene mapping, identification of mutations
PT responsible for genetic disorders or other traits and to assess
PT biodiversity -
XX
PS Claim 20; SEQ ID No 35499; 103pp; English.
XX
CC The invention relates to isolated polynucleotide (I) and
CC polypeptide (II) sequences. (I) is useful as hybridisation probes,
CC polymerase chain reaction (PCR) primers, oligomers, and for chromosome
CC and gene mapping, and in recombinant production of (II). The
CC polynucleotides are also used in diagnostics as expressed sequence tags
CC for identifying expressed genes. (I) is useful in gene therapy techniques
CC to restore normal activity of (II) or to treat disease states involving
CC (II). (II) is useful for generating antibodies against it, detecting or
CC quantitating a polypeptide in tissue, as molecular weight markers and as
CC a food supplement. (II) and its binding partners are useful in medical
CC imaging of sites expressing (II). (I) and (II) are useful for treating
CC disorders involving aberrant protein expression or biological activity.
CC The polypeptide and polynucleotide sequences have applications in
CC diagnostics, forensics, gene mapping, identification of mutations
CC responsible for genetic disorders or other traits to assess biodiversity
CC and to produce other types of data and products dependent on DNA and
CC amino acid sequences. ABG00010-ABG30377 represent novel human
CC diagnostic amino acid sequences of the invention.
CC Note: The sequence data for this patent did not appear in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 808 AA;

Query Match 6.9%; Score 164; DB 22; Length 808;
Best Local Similarity 20.5%; Pred. No. 0.00012;
Matches 76; Conservative 74; Mismatches 153; Indels 68; Gaps 10;

```
Qy     30 HLQCLIQSFETAPSRTCPQCRIQVG--------KRTIINKLFFDLAQ--EEENVLDREF- 78
          |:: | :|  ||  :     : :|         | : :||    |    ||:  |  |
Db    321 hievlkesl-takeqraailqtevdalrlrleekesflnkktkqlqdlteekgtlageir 379

Qy     79 --------------LKNELDNVRAQLSQKDKEKRDSQVIIDTLRDTLEERNATVVSLQQ 123
                        |: :::|:: ||  |||:  : :  : :|:      :  : :|::
Db    380 dmkdmlevkerkinvlqkkienlqeqlrdkdkqltnlkdrvkslqtdssntdtalatlee 439

Qy    124 ALGKAEMLCSTLKKQMKYLEQQQDETKQAQEEAGRLRSKMKTMEQIELLLQSQLPEVEEM 183
          || : | :  ||      ||:: : ::  ||    | : | :::    ||::| | |
Db    440 alsekeriierlk------eqrerddrerleeiesfrkenkdlkekvnalqaeltekess 493

Qy    184 IRDMGVGQS-----------------AVEQLAVYCVSLK---KEYENLKEARKASGEVA 222
          : |:    |                 |:||    |  |:   |:  |:::  : : | |
Db    494 lidlkehasslasaglkrdsklksleiaieqkkeecskleaqlkkahnieddsrmnpefa 553

Qy    223 DKLR---KDLFSSRSKLQTVYSELDQAKLELKSAQKDLQSADKEIMSLKKKLTMLQETLN 279
          |:::   |:    | :     :|:|:    ||  : :    ||:|  |:       :  |
Db    554 dqikqldkeasyyrdecgkaqaevdrlleilkeveneknddkdkkiaelesltlrhmkdqn 613

Qy    280 LPPVASETVDRLVLESPAPVEVNLKLRRPSFRDDID-------LNA----TFDVDTPPAR 328
              :  :|  :  | :   :: |  |  |:          :||      ::|   ||
Db    614 kkvanlkhnqqlekkknaqlleevrrredsmadnsqhlqieelmnalektrqeldatkar 673

Qy    329 PSSSQHGYYEK 339
           :|:|    ||
Db    674 lastqqslaek 684
```

RESULT 32
AAB96721
ID AAB96721 standard; Protein; 1177 AA.
XX
AC AAB96721;
XX
DT 29-OCT-2001 (first entry)
XX
DE Putative P. abyssi ATPase involved in DNA repair #3.
XX
KW Hyperthermophilic archaeon; hyperthermophilic protein.
XX
OS Pyrococcus abyssi.
XX
PN FR2792651-A1.
XX
PD 27-OCT-2000.
XX
PF 21-APR-1999; 99FR-0005034.
XX
PR 21-APR-1999; 99FR-0005034.
XX
PA (CNRS) CNRS CENT NAT RECH SCI.
PA (IFRE-) IFREMER INST FR RECH EXPL MER.
XX
PI Forterre P, Thierry JC, Prieur D, Dietrich J, Lecompte O;
PI Querellou J, Weissenbach J, Saurin W, Heilig R;
XX
DR WPI; 2001-126236/14.
XX
PT New nucleotide sequences isolated from Pyrococcus abyssi encode
PT proteins useful in industry -
XX
PS Claim 7; Pages 1483-1487; 1657pp; French.
XX
CC The present invention relates to the genomic sequence of Pyrococcus
CC abyssi (see AAF86431 and AAH41223-7) and P. abyssi proteins. P. abyssi is
CC a hyperthermophilic archaeon, which is isolated from deep-sea
CC hydrothermal vents. The present sequence is one such P. abyssi protein.
CC The proteins of the present invention have various potential industrial
CC uses, since the proteins are stable at very high temperatures, some up to
CC 110 degrees centigrade.
CC Note: This patent is in the same patent family as WO200065062, which
CC contains additional sequences as shown in AAB99132-AAB99143,
CC AAH75903-AAH75920 and AAG66436.

```
XX
SQ   Sequence   1177 AA;


  Query Match             6.9%;  Score 164;  DB 22;  Length 1177;
  Best Local Similarity   21.8%;  Pred. No. 0.00021;
  Matches   73;  Conservative   72;  Mismatches  100;  Indels   90;  Gaps   15;

Qy      61 KLFFDLAQEEENVLDREFLKNELDNVRAQLSQKDKEKRDSQVIIDTLRDTLEERNATVVS 120
           |   :| | |||:   : |  |   |: || : :||: |:   :| |:: ||     ::
Db     178 kalqelkqaeenlarvdllire---vkkqldklekerndalryld-lkerlerarveli- 232

Qy     121 LQQALGKAEMLCSTLKKQMKYLEQQQDETKQAQEE----AGRLRSKMKTMEQIELLLQS- 175
           ||: : : | :|   : :|: ::| |: :|:    |  :  | : ::::| |::
Db     233 ----lgeikkveseikgnderiekieeeikeieekleeiakeivrkerelkeveelieke 288

Qy     176 ----------QLPEVEEMI----RDMGVGQSAVEQLAVYCVSLKKEYEN-LKEARKASGE 220
                  :: ||   |    |:: | :  :::  :  :  | | :  | |  |: |
Db     289 sseealkitreigevnskinlakrnievakkeldeaqirlikakdelkkvlseiekskga 348

Qy     221 VA----------DKLRKDLFSSRSKLQTVYSELDQ----AKLELKSAQKDLQSADKEIMS 266
           :|          :|: |:|   |:||     |:|:    |: |  :  |:|::| | :
Db     349 iarwgkrkeallnki-keleeernklvvklgeidrtfavareefdnvvkelenarkslye 407

Qy     267 LK---KKLTMLQETLNLPPVASETVDRLVLESPAPVEVNLKLRRPSFRDDIDLNATFDVD 323
           :   |:|   :| |:          |: :          || : |  |:::
Db     408 neadikrleaekerls---------sriti---------lkaklpgireev--------- 440

Qy     324 TPPARPSSSQHGYYEKL--CLEKSHSPIQDVPKKI 356
                      |||   ||:  : : :|  ||
Db     441 -------------eklrekleekkaelsnvenki 461


RESULT  33
AAY77575
ID   AAY77575 standard; Protein; 2442 AA.
XX
AC   AAY77575;
XX
DT   08-MAY-2000  (first entry)
XX
DE   Human cytoskeletal protein (HCYT) (clone 1655208).
XX
KW   Human cytoskeletal protein; HCYT; cell proliferation; immunological;
KW   reproductive; nervous disorder; cytostatic; immunosuppressive; anti-HIV;
KW   anti-diabetic; antiarteriosclerotic; dermatological; anti-inflammatory;
KW   anti-infertility; vasotropic; cardiant.
XX
OS   Homo sapiens.
XX
PN   WO200006730-A2.
XX
PD   10-FEB-2000.
XX
PF   30-JUL-1999;   99WO-US17167.
XX
PR   31-JUL-1998;   98US-0155185.
PR   04-AUG-1998;   98US-0160081.
PR   19-AUG-1998;   98US-0155228.
XX
PA   (INCY-) INCYTE PHARM INC.
XX
PI   Bandman O,  Tang YT,  Yue H,  Corley NC,  Guegler KJ,  Azimzai Y;
PI   Patterson C,  Lal P,  Baughn MR;
XX
DR   WPI; 2000-195297/17.
DR   N-PSDB; AAZ58980.
XX
PT   Human cytoskeletal proteins useful for diagnosing, treating preventing
PT   cell proliferative, immunological, reproductive, developmental and
PT   nervous disorders  -
XX
PS   Claim 1; Page 71-76; 84pp; English.

XX
CC   The invention provides human cytoskeletal proteins (HCYT) and nucleic
CC   acids encoding the proteins. The HCYT polypeptides can be expressed by
CC   standard recombinant methodology. The HCYT polypeptides, modulators and
CC   antibodies are useful for treating or preventing a disorder associated
CC   with decreased and increased expression or activity of HCYT in mammals.
CC   The polypeptides are also useful for diagnosing HCYT activity disorders
CC   such as cell proliferative, immunological, reproductive, developmental
CC   and nervous disorders. Sequences AAY77569-576 represent HCYT
CC   polypeptides.
XX
SQ   Sequence   2442 AA;


  Query Match             6.9%;  Score 164;  DB 21;  Length 2442;
  Best Local Similarity   22.6%;  Pred. No. 0.00058;
  Matches   90;  Conservative   59;  Mismatches  151;  Indels   98;  Gaps   16;

Qy      68 QEEENVLDREFLK--NELDNVRAQLSQKDKEKRDSQVIIDTLRDTLEERNATVVSLQQAL 125
           ::| :   :|  |    |:  : :|  : ||::     |   |:  |||     :|
Db     863 ekerswhqqelakaleslerekmelemrlkeqqtemeaiqaqre--eertqaesal---- 916

Qy     126 GKAEMLCSTLKKQMKYLE---QQQDETKQAQEEAGRLRSKMKTMEQIEL----LLQSQLP 178
             :|   | |:::  ||   | | |   | ::  |||  ||  :  |     :||:||
Db     917 --cqmqletekervslletllqtqkeladasqqlerlrqdmkvqklkeqettgilqtqlq 974

Qy     179 EVEEMIR--------DMGVGQSAVEQLAVYCVSLKKEYENLK--------EARKASGEVA 222
           | :  ::        |:   |     |     : |:|: |:||        |   ||
Db     975 eaqrelkeaarqhrddlaalqeesssllqdkmdlqkqvedlksqlvaqddsqrlveqevq 1034

Qy     223 DKLR---------KDLFSSRSKLQTVYSELDQAKL-----------ELKSAQKDLQSADK 262
           :|||          |:|   :: |     | :|  |           || : ::|:| |
Db    1035 eklretqeynriqkelerekasltlslmekeqrllvlqeadsirqqelsalrqdmqeaqg 1094

Qy     263 EIMSLKKKLTMLQETLNLPPVASETVDRLVLESPAPVEV---------------------- 301
           |   |  :: :|::      |  :  | | ||:    |:
Db    1095 eqkelsaqmellrq-----evkekeadflaqeaqlleeleashiteqqlraslwaqeaka 1149

Qy     302 -NLKLRRPSFRDDIDLNATFDVDTPPARPSSSQHGYYEKLCLEKSHSPIQDVPKKICKGP 360
            | ||  |    ::  |    :  |   :|:|        |   :| :|     :|:
Db    1150 aqlhlrlrstesqleala---aeqqpgnqaqaq-----aqlaslysalqqalgsvce-- 1198

Qy     361 RKESQLSLGGQSCAG----EPDEELVGAFPIFVRNAIL 394
           :|| || |       |||:   ||  :| | |  :|
Db    1199 -srpelsgggdsapsvwglepdqn--garslfkrgpll 1233


RESULT  34
AAP90955
ID   AAP90955 standard; protein; 441 AA.
XX
AC   AAP90955;
XX
DT   23-FEB-1990  (first entry)
XX
DE   M6 streptococcal protein.
XX
KW   Immunoglobulin.
XX
OS   Streptococcus group A.
XX
FH   Key             Location/Qualifiers
FT   Region          216..235
FT   Region          248..269
FT   Region          275..284
XX
PN   WO8909064-A.
XX
PD   05-OCT-1989.
XX
PF   13-MAR-1989;   89WO-US01026.
XX
PR   25-MAR-1988;   88US-0173380.
```

```
XX
PA   (UYRO ) ROCKEFELLER UNIV.
XX
PI   Fischetti V;
XX
DR   WPI; 1989-309382/42.
XX
PT   Polypeptide(s) from streptococcal M protein - used to prepare vaccines
PT   for providing protection against streptococcal infection
XX
PS   Disclosure; Fig 1; 22pp; English.
XX
CC   The regions (pref. conjugated to a natural carrier, eg cholera toxin)
CC   above can elicite an secretory Ig response in a mammal.  They are used
CC   in vaccines against streptococcal infection, and give protection to
CC   different serotypes.
XX
SQ   Sequence   441 AA;


  Query Match             6.9%;  Score 163.5;  DB 10;  Length 441;
  Best Local Similarity   22.3%;  Pred. No. 5.9e-05;
  Matches   81;  Conservative   70;  Mismatches  124;  Indels   89;  Gaps   14;

Qy      55 KRTIINKLFFDLAQEEENVLDREFLKNELDNVRAQLSQKDK--EKRDSQVIIDTLRDTLE 112
           |:|:   :   :|:|:|:|      ||  ||      : |||  ::::|:  | ||: ||:
Db     124 kktldetvkdkiakeqesketigtlkktlde-----tvkdkiakeqesketigtlkktld 178

Qy     113 ERNATVVSLQQALGKAEMLCSTLKKQMKYLEQQQDET--------KQAQEEAGRLRSKMK 164
           |     :: :|   :::    |||| :       |||        :::::: | |:
Db     179 etvkdkiakeq---esketigtlkkil-------detvkdkiareqkskqdigalkq--- 225

Qy     165 TMEQIELLLQSQLPEVEE-----MIRDMGVGQSAVEQLAVYCVSLKKEYENLKEARKASG 219
           ||  : :  :| |     : ||:   : | :|:     :|  | : :|| :: |
Db     226 -----elakkdegnkvseasrkglrrdldasreakkqvekdlanltaeldkvkeekqisd 280

Qy     220 EVADKLRKDLFSSRSKLQTVYSELDQAKLELKSAQKDLQSADKEIMSLKKKLTMLQETLN 279
           ||:|| :||           :||   |  :| |: |: :: :|:|    |:|:
Db     281 asrqglrrdldasr-----------eak---kqvekaleeansklaaleklnkelees-- 324

Qy     280 LPPVASETVDRLVLESPAPVEVNLKLRRPSFRDDIDLNA----------TFDVDTPPARP 329
                  :|  :  | ::  |:    : :: :   |            |  || |:|
Db     325 ---------kkltekekaelqakleaeakalkeqlakqaeelaklragkasdsqtpdakp 375

Qy     330 SSSQHGYYEKLCLEKSHSPIQDVPKKICKGPRKESQLSLGGQSCAGEPDEELVGAFPIFV 389
           :       |:   |  :|         | | ||::  |      ||       | | |
Db     376 gn-------kvvpgkgqapqagtkpnqnkapmketkrql---pstget------anpfft 419

Qy     390 RNAI 393
             |:
Db     420 aaal 423


RESULT  35
AAR41780
ID   AAR41780 standard; protein; 441 AA.
XX
AC   AAR41780;
XX
DT   25-MAR-1994  (first entry)
XX
DE   Streptococcus pyogenes M6 protein.
XX
KW   Group A Streptococci; coiled coil surface antigen; anchor region;
KW   gram positive bacterium; M protein; fusion protein; immunogen.
XX
OS   Streptococcus pyogenes.
XX
FH   Key             Location/Qualifiers
FT   Region          1..362
FT                   /label= extracellular_region
FT                   /note= "coiled structure"
FT   Region          298..441
FT                   /note= "cell-associated region"
FT   Region          407..441
FT                   /label= anchor
FT                   /note= "preferred anchor region for use in novel
FT                           fusion proteins; includes a 3 amino acid
FT                           spacer between the consensus anchor motif
FT                           and the hydrophobic segment"
FT   Region          298..370
FT                   /label= carbohydrate_segment
FT   Region          371..416
FT                   /label= peptidoglycan_segment
FT   Region          407..412
FT                   /note= "consensus LPSTGE motif common to anchor
FT                           regions of gram-positive bacteria"
FT   Region          417..435
FT                   /label= hydrophobic_segment
FT   Region          436..441
FT                   /label= tail_segment
FT                   /note= "highly charged"
XX
PN   WO9318163-A.
XX
PD   16-SEP-1993.
XX
PF   12-MAR-1993;   93WO-US02355.
XX
PR   13-MAR-1992;   92US-0851082.
XX
PA   (UYRQ ) UNIV ROCKEFELLER.
XX
PI   Fischetti VA,  Pozzi G,  Schneewind O;
XX
DR   WPI; 1993-303477/38.
XX
PT   Gene encoding hybrid surface protein of gram positive bacteria -
PT   useful for preparing vaccine compsn. for protecting animals from
PT   bacterial infection
XX
PS   Disclosure and Claim 14; Fig 3; 85pp; English.
XX
CC   Hybrid surface proteins are claimed in which an active
CC   polypeptide (e.g. a surface antigen from a mammalian tumour cell,
CC   sperm or an allergen, bacterium, virus, parasite or fungus) is
CC   fused to an anchor region from a surface antigen normally expressed
CC   on the cell surface of gram positive bacteria. The anchor segment
CC   is pref. derived from a streptococcal M protein.
XX
SQ   Sequence   441 AA;


  Query Match             6.9%;  Score 163.5;  DB 14;  Length 441;
  Best Local Similarity   22.3%;  Pred. No. 5.9e-05;
  Matches   81;  Conservative   70;  Mismatches  124;  Indels   89;  Gaps   14;

Qy      55 KRTIINKLFFDLAQEEENVLDREFLKNELDNVRAQLSQKDK--EKRDSQVIIDTLRDTLE 112
           |:|:   :   :|:|:|:|      ||  ||      : |||  ::::|:  | ||: ||:
Db     124 kktldetvkdkiakeqesketigtlkktlde-----tvkdkiakeqesketigtlkktld 178

Qy     113 ERNATVVSLQQALGKAEMLCSTLKKQMKYLEQQQDET--------KQAQEEAGRLRSKMK 164
           |     :: :|   :::    |||| :       |||        :::::: | |:
Db     179 etvkdkiakeq---esketigtlkkil-------detvkdkiareqkskqdigalkq--- 225

Qy     165 TMEQIELLLQSQLPEVEE-----MIRDMGVGQSAVEQLAVYCVSLKKEYENLKEARKASG 219
           ||  : :  :| |     : ||:   : | :|:     :|  | : :|| :: |
Db     226 -----elakkdegnkvseasrkglrrdldasreakkqvekdlanltaeldkvkeekqisd 280

Qy     220 EVADKLRKDLFSSRSKLQTVYSELDQAKLELKSAQKDLQSADKEIMSLKKKLTMLQETLN 279
           ||:|| :||           :||   |  :| |: |: :: :|:|    |:|:
Db     281 asrqglrrdldasr-----------eak---kqvekaleeansklaaleklnkelees-- 324

Qy     280 LPPVASETVDRLVLESPAPVEVNLKLRRPSFRDDIDLNA----------TFDVDTPPARP 329
                  :|  :  | ::  |:    : :: :   |            |  || |:|
Db     325 ---------kkltekekaelqakleaeakalkeqlakqaeelaklragkasdsqtpdakp 375
```

```
Qy    330 SSSQHGYYEKLCLEKSHSPIQDVPKKICKGPRKESQLSLGGQSCAGEPDEELVGAFPIFV 389
          :       |:   |  :|         | | ||::  |      ||       | | |
Db    376 gn-------kvvpgkgqapqagtkpnqnkapmketkrql---pstget------anpfft 419

Qy    390 RNAI 393
            |:
Db    420 aaal 423


RESULT  36
AAW08927
ID   AAW08927 standard; Protein; 483 AA.
XX
AC   AAW08927;
XX
DT   31-MAR-1997  (first entry)
XX
DE   Type-6 M-protein.
XX
KW   Type-6 M-protein; emm6 gene; Streptococcus pyogenes; signal peptide;
KW   anchor peptide; C-terminal sorting signal; surface display;
KW   fusion protein; protease-deficient; Streptococcus gordonii;
KW   SPEX vector; fusion protein cleavage; spacer; protein secretion;
KW   TEV-NIa protease; diagnostic; recombinant vaccine; therapy.
XX
OS   Streptococcus pyogenes.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1..42
FT                   /note= "Signal peptide (claim 22)"
FT   Peptide         1..58
FT                   /note= "Preferred N-terminal secretion sequence
FT                          (claim 23)"
FT   Peptide         263..342
FT                   /note= "Preferred spacer peptide (claim 32)"
FT   Peptide         344..483
FT                   /note= "Preferred C-terminal anchoring sequence
FT                          (claim 25)"
FT   Domain          405..458
FT                   /note= "Proline/glycine-rich cell wall domain"
FT   Peptide         449..454
FT                   /note= "Conserved C-terminal motif (AAW08924, claim 9)"
FT   Domain          459..477
FT                   /note= "Hydrophobic membrane-spanning domain"
FT   Domain          478..483
FT                   /note= "C-terminal charged tail"
XX
PN   WO9640943-A1.
XX
PD   19-DEC-1996.
XX
PF   06-JUN-1996;   96WO-US09965.
XX
PR   07-JUN-1995;   95US-0472244.
XX
PA   (UYRQ ) UNIV ROCKEFELLER.
XX
PI   Darzins A,  Hruby D,  Whitehead S;
XX
DR   WPI; 1997-052336/05.
DR   N-PSDB; AAT49317.
XX
PT   Expressing heterologous proteins in gram-positive bacteria -
PT   produces proteins anchored to host's cell surface, or secreted from
PT   cell
XX
PS   Disclosure; Fig 3; 41pp; English.
XX
CC   This sequence represents Streptococcus pyogenes type-6 M-protein,
CC   which is a cell wall surface protein.  The N-terminal signal
CC   peptide, part of the mature N-terminal sequence, the C-terminal
CC   sorting signal (anchor) sequence and optionally a spacer region
CC   from the protein may be expressed as a fusion with a target protein
CC   in a protease-deficient Gram-positive host, e.g. the human oral
CC   commensal Streptococcus gordonii, in a new cloning method involving
CC   the SPEX vector series (e.g. plasmid pSPEX1a).  The C-terminal
CC   sorting signal contains a proline/glycine-rich region (with a
CC   conserved cell wall anchoring motif; AAW08924), a hydrophobic
CC   membrane-spanning region and a charged tail.  The resulting fusion
CC   protein is expressed on the cell surface, and may be cleaved with
CC   e.g. tobacco-etch virus TEV-NIa protease (at a site adjacent to the
CC   anchor, e.g. AAW08925-26) for simple purification.  A spacer region
CC   from M-protein may be included to reduce steric hindrance during
CC   fusion protein cleavage.  A vector without the anchor sequence may
CC   be used for protein secretion.  The method may be used in production
CC   of recombinant diagnostic, vaccine and therapeutic proteins.
XX
SQ   Sequence   483 AA;


  Query Match             6.9%;  Score 163.5;  DB 18;  Length 483;
  Best Local Similarity   22.3%;  Pred. No. 6.7e-05;
  Matches   81;  Conservative   70;  Mismatches  124;  Indels   89;  Gaps   14;

Qy     55 KRTIINKLFFDLAQEEENVLDREFLKNELDNVRAQLSQKDK--EKRDSQVIIDTLRDTLE 112
          |:|:   :   :|:|:|:      ||  ||     : |||  ::::|:  | ||: ||:
Db    166 kktldetvkdkiakeqesketigtlkktlde-----tvkdkiakeqesketigtlkktld 220

Qy    113 ERNATVVSLQQALGKAEMLCSTLKKQMKYLEQQQDET--------KQAQEEAGRLRSKMK 164
          |     :: :|   :::    |||| :   |  |||        :::::: | |:
Db    221 etvkdkiakeq---esketigtlkkil-------detvkdkiareqkskqdigalkq--- 267

Qy    165 TMEQIELLLQSQLPEVEE-----MIRDMGVGQSAVEQLAVYCVSLKKEYENLKEARKASG 219
              ||  : :  :| |     : ||:   : | :|:     :|  | : :|| :: |
Db    268 -----elakkdegnkvseasrkglrrdldasreakkqvekdlanltaeldkvkeekqisd 322

Qy    220 EVADKLRKDLFSSRSKLQTVYSELDQAKLELKSAQKDLQSADKEIMSLKKKLTMLQETLN 279
              ||:|| :||           :||   |  :| |: |: :: :|:|    |:|:
Db    323 asrqglrrdldasr----------eak---kqvekaleeansklaaleklnkelees-- 366

Qy    280 LPPVASETVDRLVLESPAPVEVNLKLRRPSFRDDIDLNA----------TFDVDTPPARP 329
                 :|  :  | ::  |:    : :: :  |             |  || |:|
Db    367 ---------kkltekekaelqakleaeakalkeqlakqaeelaklragkasdsqtpdakp 417

Qy    330 SSSQHGYYEKLCLEKSHSPIQDVPKKICKGPRKESQLSLGGQSCAGEPDEELVGAFPIFV 389
          :       |:   |  :|         | | ||::  |      ||       | | |
Db    418 gn-------kvvpgkgqapqagtkpnqnkapmketkrql---pstget------anpfft 461

Qy    390 RNAI 393
            |:
Db    462 aaal 465


RESULT  37
AAM40016
ID   AAM40016 standard; Protein; 1213 AA.
XX
AC   AAM40016;
XX
DT   22-OCT-2001  (first entry)
XX
DE   Human polypeptide SEQ ID NO 3161.
XX
KW   Human; nootropic; immunosuppressant; cytostatic; gene therapy; cancer;
KW   peripheral nervous system; neuropathy; central nervous system; CNS;
KW   Alzheimer's; Parkinson's disease; Huntington's disease; haemostatic;
KW   amyotrophic lateral sclerosis; Shy-Drager Syndrome; chemotactic;
KW   chemokinetic; thrombolytic; drug screening; arthritis; inflammation;
KW   leukaemia.
XX
OS   Homo sapiens.
XX
PN   WO200153312-A1.
XX
PD   26-JUL-2001.
```

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XX
PF   26-DEC-2000; 2000WO-US34263.
XX
PR   21-JAN-2000; 2000US-0488725.
PR   25-APR-2000; 2000US-0552317.
PR   09-JUL-2000; 2000US-0598042.
PR   19-JUL-2000; 2000US-0620312.
PR   03-AUG-2000; 2000US-0653450.
PR   14-SEP-2000; 2000US-0662191.
PR   19-OCT-2000; 2000US-0693036.
PR   29-NOV-2000; 2000US-0727344.
XX
PA   (HYSE-) HYSEQ INC.
XX
PI   Tang YT,  Liu C,  Asundi V,  Chen R,  Ma Y,  Qian XB,  Ren F,  Wang D;
PI   Wang J,  Wang Z,  Wehrman T,  Xu C,  Xue AJ,  Yang Y,  Zhang J;
PI   Zhao QA,  Zhou P,  Goodrich R,  Drmanac RT;
XX
DR   WPI; 2001-442253/47.
DR   N-PSDB; AAI59172.
XX
PT   Novel nucleic acids and polypeptides, useful for treating disorders
PT   such as central nervous system injuries -
XX
PS   Example 4; SEQ ID NO 3161; 10078pp; English.
XX
CC   The invention relates to human nucleic acids (AAI57798-AAI61369) and
CC   the encoded polypeptides (AAM38642-AAM42213) with nootropic,
CC   immunosuppressant and cytostatic activity. The polynucleotides are useful
CC   in gene therapy. A composition containing a polypeptide or polynucleotide
CC   of the invention may be used to treat diseases of the peripheral nervous
CC   system, such as peripheral nervous injuries, peripheral neuropathy and
CC   localised neuropathies and central nervous system diseases, such as
CC   Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic
CC   lateral sclerosis, and Shy-Drager Syndrome. Other uses include the
CC   utilisation of the activities such as: Immune system suppression,
CC   Activin/inhibin activity, chemotactic/chemokinetic activity, haemostatic
CC   and thrombolytic activity, cancer diagnosis and therapy, drug screening,
CC   assays for receptor activity, arthritis and inflammation, leukaemias and
CC   C.N.S disorders.
CC   Note: The sequence data for this patent did not form part of the printed
CC   specification.
XX
SQ   Sequence   1213 AA;


  Query Match             6.9%;  Score 163.5;  DB 22;  Length 1213;
  Best Local Similarity   23.5%;  Pred. No. 0.00024;
  Matches  109;  Conservative   70;  Mismatches  170;  Indels  115;  Gaps   20;

Qy      39 ETAPSRTCPQCRIQVGKRT-IINKL--FFDLAQEEENVLDREFLKNELDNVRAQLSQKDK 95
           |    ||  :   :  | |  :||   | :| ::|     || ||  |:  :|  ::|:|
Db     173 ekchrrtvyelenekhkhtdymnksddftnlleqe-----rerlkkl1eqekayqarkek 227

Qy      96 E--KRDSQVIIDTLRDTLEERNATVVSLQQALGKAEMLCSTLKKQMKYLEQQQDETKQAQ 153
           |  ||     :: ||| | :  :  : |   : : :|    |  |    :: || |:: :
Db     228 enakr-----lnklrdelvklksfalml---vderqmhieqlglqs---qkvqdltqklr 276

Qy     154 EEAGRLRS-KMKTMEQIELLLQSQL----------PEVEEMIRDMGVGQSAVEQLAVYCV 202
           ||  :|::   |: |  : ||: ::           | |||   :   :|   || :  |
Db     277 eeeeklkaitskskedrqkllklevdfehkasrfsqeheemnaklanqeshnrqlrlklv 336

Qy     203 SLKKEYENLKEARK---------------ASGEV--------ADKLRKDLFSS------ 232
           | :  | |:|  |              | ||          : ||| :
Db     337 gltqrieeleetnknlqkaeeelqelrdkiakgecgnsslmaevenlrkrvlemegkdee 396

Qy     233 ----------RSKLQTVYSELDQAKLELKSAQKDLQSADK-EIMSLKKKLTMLQETLNL 280
                    | |||       : :||::  || :   :| |    | |    |  |||
Db     397 itktesqcrelrkklqeeehhskelrleveklqkrmselekleeafsksksectqlhlnl 456

Qy     281 PPVASETVDRL----VLESPAP----VEVNLKLRRPSFRDDIDLNATFDVDTPPARPSSS 332
               : | | |    |::|        | |:    | :||:    :| |     | :
Db     457 ekeknltkdllnelevvksrvkelecsesrlekaelslkddltklksftvmlvderkn-- 514

Qy     333 QHGYYEKLCLEK-----------SHSPIQDVPKKICKGPRK----ESQLSLGGQSCAGE 376
                 ||:  |:               : || :|: :  :|    :|::     :   |
Db     515 ---mmekikqeerkvdglnknfkveqgkvmdvteklieeskkllklksemeekvynltre 571

Qy     377 PDEELVGAFPIFVRNAILGQKQPKRPRSESSCSKDVVRTGFDGL 420
             | ||:|            |  :   || ||| |:::   ||:
Db     572 rd-eligkl----------kseeeksselscsvdllkkrldgi 603


RESULT  38
ABB59807
ID   ABB59807 standard; Protein; 1639 AA.
XX
AC   ABB59807;
XX
DT   26-MAR-2002  (first entry)
XX
DE   Drosophila melanogaster polypeptide SEQ ID NO 6213.
XX
KW   Drosophila; developmental biology; cell signalling; insecticide;
KW   pharmaceutical.
XX
OS   Drosophila melanogaster.
XX
PN   WO200171042-A2.
XX
PD   27-SEP-2001.
XX
PF   23-MAR-2001; 2001WO-US09231.
XX
PR   23-MAR-2000; 2000US-191637P.
PR   11-JUL-2000; 2000US-0614150.
XX
PA   (PEKE ) PE CORP NY.
XX
PI   Venter JC,  Adams M,  Li PWD,  Myers EW;
XX
DR   WPI; 2001-656860/75.
DR   N-PSDB; ABL03910.
XX
PT   New isolated nucleic acid detection reagent for detecting 1000 or more
PT   genes from Drosophila and for elucidating cell signalling and cell-cell
PT   interactions -
XX
PS   Disclosure; SEQ ID NO 6213; 21pp + Sequence Listing; English.
XX
CC   The invention relates to an isolated nucleic acid detection reagent
CC   capable of detecting 1000 or more genes from Drosophila. The invention is
CC   useful in developmental biology and in elucidating cell signalling and
CC   cell-cell interactions in higher eukaryotes for the development of
CC   insecticides, therapeutics and pharmaceutical drugs. The invention
CC   discloses genomic DNA sequences (ABL16176-ABL30511), expressed DNA
CC   sequences (ABL01840-ABL16175) and the encoded proteins
CC   (ABB57737-ABB72072).
CC   The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence   1639 AA;


  Query Match             6.9%;  Score 163.5;  DB 22;  Length 1639;
  Best Local Similarity   21.7%;  Pred. No. 0.00036;
  Matches  117;  Conservative   72;  Mismatches  220;  Indels  129;  Gaps   21;

Qy       7 CTICSDFFDHSRDVAAIHCGHTFHLQCLIQSFETAPSRTCPQCRIQVGKRTIINKLFFDL 66
           |  | | ::  :| | :|    |:|   :      |     :      |   : :    |
Db    1047 cidcpdcynlvqdaadlhraklfnlsqtldeiartpvtnddefe---aklkavqekvavl 1103

Qy      67 AQEEEN-----------VLDREFLKNELDNVRAQLSQKDKEKRDSQVIIDTLRDTLEERN 115
           ||:  :           |:|   |  ||:||  |   || : |:   ||  |     :|
Db    1104 aqdardnsgdggqtyaevidd--lhkhldsvrehlvsadkfqadangeidrar-----qn 1156
```

```
Qy    116 ATVV---------SLQQALG-----KAEMLCSTLKKQMKYLEQQQDETKQAQEEAGRLRS 161
Db   1157 ytildqitenakkelqqaldllndegaqalarakeksvef-gqqseqisdisrearalad 1215

Qy    162 KMKTMEQIEL------------------LLQSQLPEVEEMIRDMGVGQSAVEQLAVYCV 202
Db   1216 kleseaqfdlknakdakdavekahqlaksaidlqlkigtelrsevglelshvkq------ 1269

Qy    203 SLKKEYENLKEARKASGEVADKLRKDLFSSRSKLQTVYSELDQAKLELKSAQKDLQSADK 262
Db   1270 slgtvvqtskealrkanevyd-------taltllndv-nrqtqpeidisqlkkdavaane 1321

Qy    263 EIMSLKKKLTMLQETLNLPPVASETVDRLVLESPAPVEVNLKLRRPSFRDDIDL----NA 318
Db   1322 radellkqitelsnsngelfadfeteqel-------teallkraeqqqlediellleraka 1374

Qy    319 TFDVDTPPARPSSS----QHGYYEKLC---------LEKSHSPIQDVPKKICKGPRKESQ 365
Db   1375 ahdkatkaveqgdntlkeanntyeklagfqsdvqrssesaekalqtvp-----niekeiq 1429

Qy    366 LSLGGQSCAGEPDEELVGAFPIFVRNAILGQKQP-----------------KRPRSESS 407
Db   1430 ---naeslisqaeealdga----nknaneakknaqeaqlkyaeqaskdaelirrkanetk 1482

Qy    408 CSKDVVRTGFDGLGGRTKFIQPTDTVMIRPLPVKPKTKVKQRVRVKTVPSLFQAKLDT 465
Db   1483 vaarnlreeadqlnhrvklte-mdifkleesstkddnlvddakr-----kvgqakadt 1534
```

RESULT 39
AAY07031
ID AAY07031 standard; Protein; 1752 AA.
XX
AC AAY07031;
XX
DT 02-JUL-1999 (first entry)
XX
DE Breast cancer associated antigen precursor sequence.
XX
KW Cancer associated antigen; diagnosis; research; treatment; human;
KW breast cancer; colon cancer; gastric cancer; renal cancer; lung cancer;
KW prostate cancer.
XX
OS Homo sapiens.
XX
PN WO9904265-A2.
XX
PD 28-JAN-1999.
XX
PF 15-JUL-1998; 98WO-US14679.
XX
PR 22-JUN-1998; 98US-0102322.
PR 17-JUL-1997; 97US-0896164.
PR 10-OCT-1997; 97US-0061599.
PR 10-OCT-1997; 97US-0061765.
PR 10-OCT-1997; 97US-0948705.
PR 11-OCT-1997; 97GB-0021697.
XX
PA (LUDW-) LUDWIG INST CANCER RES.
XX
PI Chen Y, Gout I, Gure A, O'Hare M, Obata Y, Old LJ;
PI Pfreundschuh M, Sahin U, Scanlan MJ, Stockert E;
PI Tureci O;
XX
DR WPI; 1999-132448/11.
XX
PT New isolated cancer associated nucleic acids and polypeptides -
PT isolated using sera from cancer patients, used to develop products
PT for the diagnosis, monitoring or treatment of cancers
XX
PS Disclosure; Page 409-413; 787pp; English.
XX
CC The invention relates to a method for diagnosing a disorder characterised
CC by expression of a human cancer associated antigen precursor coded for by
CC a nucleic acid molecule (NAM). The method comprises: (a) contacting a
CC biological sample isolated from a subject with an agent that specifically
CC binds to the NAM, an expression product or a fragment of an expression
CC product complexed with an HLA molecule; and (b) determining the
CC interaction between the agent and the NAM or the expression product as a
CC determination of the disorder. The products and methods can be used in
CC the diagnosis, monitoring, research, or treatment of conditions
CC characterised by the expression of various cancer associated antigens.
CC The invention provides nucleic acid sequences and encoded polypeptides
CC which are cancer associated antigen precursors expressed in human breast
CC cancer, renal cancer, colon cancer, gastric cancer, prostate cancer and
CC lung cancer.
XX
SQ Sequence 1752 AA;

Query Match 6.9%; Score 163.5; DB 20; Length 1752;
Best Local Similarity 20.3%; Pred. No. 0.0004;
Matches 96; Conservative 96; Mismatches 156; Indels 125; Gaps 22;

```
Qy     15 DHSRDVAAIHCGHTFHLQCLIQSFETAPSRTCPQCRIQVGKRTIINKLFFDLAQEEENVL 74
Db     68 eyenelakvrnhyneemsnlrnkyet---------einitktti-----keismqked-- 111

Qy     75 DREFLKNELDNVRAQLSQKDKEKRDSQVIID--TLRDTLEERNATVVSLQQALGKAEMLC 132
Db    112 dsknlrnqld----rlsrenrdlkdeivrlndsilqateqrrraeenalqqkacgseimq 167

Qy    133 ST--LKKQMKYLEQQQDET----KQAQEEAGR-LRSKMKTMEQIELLLQ----------S 175
Db    168 kkqhleielkqvmqqrsednarhkqsleeaaktiqdknkeierlkaefqeeakrrweyen 227

Qy    176 QLPEV-----EEMI-------RDMGVGQSAVEQLAVY----CVSLKKEYENLKEARKASG 219
Db    228 elskvrnnydeeiislknqfeteinitkttihqltmqkeedtsgyraqidnltrenrsls 287

Qy    220 EVADKLRKDLFSSRSKLQTVYSELDQAK--------------LELKSA----------Q 254
Db    288 eeikrlkntltqttenlrrveediqqqkatgsevsqrkqqlevelrqvtqmrteesvryk 347

Qy    255 KDLQSADKEIMSLKKKLTMLQETLNLPPVASETVDRLVLESPAPVEVNLKLRRPSFRDDI 314
Db    348 qslddaaktiqdknkeierlkqlid-----ketndrkcle-----denarlqrvqy---- 393

Qy    315 DLNATFDVDTPPARPSSSQHGY-------YEKLCLEKSHSPIQDVPKKICKGPRKESQLS 367
Db    394 dlqkanssatetinklkvqeqeltrlridyervsqertvkd-qditr--fqnslkelqlq 450

Qy    368 LGGQSCAGEPDEELVGAFPIFVRNAILGQKQPKRPRSESSCSKDVVRTGFDGL 420
Db    451 ------kqkveeel---------------nrlkrtasedsckrkkleeelegm 482
```

RESULT 40
AAM40999
ID AAM40999 standard; Protein; 1988 AA.
XX
AC AAM40999;
XX
DT 22-OCT-2001 (first entry)
XX
DE Human polypeptide SEQ ID NO 5930.
XX
KW Human; nootropic; immunosuppressant; cytostatic; gene therapy; cancer;
KW peripheral nervous system; neuropathy; central nervous system; CNS;
KW Alzheimer's; Parkinson's disease; Huntington's disease; haemostatic;
KW amyotrophic lateral sclerosis; Shy-Drager Syndrome; chemotactic;
KW chemokinetic; thrombolytic; drug screening; arthritis; inflammation;
KW leukaemia.
XX
OS Homo sapiens.

XX
PN WO200153312-A1.
XX
PD 26-JUL-2001.
XX
PF 26-DEC-2000; 2000WO-US34263.
XX
PR 21-JAN-2000; 2000US-0488725.
PR 25-APR-2000; 2000US-0552317.
PR 09-JUL-2000; 2000US-0598042.
PR 19-JUL-2000; 2000US-0620312.
PR 03-AUG-2000; 2000US-0653450.
PR 14-SEP-2000; 2000US-0662191.
PR 19-OCT-2000; 2000US-0693036.
PR 29-NOV-2000; 2000US-0727344.
XX
PA (HYSE-) HYSEQ INC.
XX
PI Tang YT, Liu C, Asundi V, Chen R, Ma Y, Qian XB, Ren F, Wang D;
PI Wang J, Wang Z, Wehrman T, Xu C, Xue AJ, Yang Y, Zhang J;
PI Zhao QA, Zhou P, Goodrich R, Drmanac RT;
XX
DR WPI; 2001-442253/47.
DR N-PSDB; AAI60155.
XX
PT Novel nucleic acids and polypeptides, useful for treating disorders
PT such as central nervous system injuries -
XX
PS Example 2; SEQ ID NO 5930; 10078pp; English.
XX
CC The invention relates to human nucleic acids (AAI57798-AAI61369) and
CC the encoded polypeptides (AAM38642-AAM42213) with nootropic,
CC immunosuppressant and cytostatic activity. The polynucleotides are useful
CC in gene therapy. A composition containing a polypeptide or polynucleotide
CC of the invention may be used to treat diseases of the peripheral nervous
CC system, such as peripheral nervous injuries, peripheral neuropathy and
CC localised neuropathies and central nervous system diseases, such as
CC Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic
CC lateral sclerosis, and Shy-Drager Syndrome. Other uses include the
CC utilisation of the activities such as: Immune system suppression,
CC Activin/inhibin activity, chemotactic/chemokinetic activity, haemostatic
CC and thrombolytic activity, cancer diagnosis and therapy, drug screening,
CC assays for receptor activity, arthritis and inflammation, leukaemias and
CC C.N.S disorders.
CC Note: The sequence data for this patent did not form part of the printed
CC specification.
XX
SQ Sequence 1988 AA;

Query Match 6.9%; Score 163.5; DB 22; Length 1988;
Best Local Similarity 22.7%; Pred. No. 0.00048;
Matches 113; Conservative 77; Mismatches 152; Indels 155; Gaps 21;

```
Qy      35 IQSFETAPSRTCPQCRIQVGKRTIINKLFFDLAQEEENVLDREF--LKNELDNVRAQLSQ 92
           |:| | |  :        : :|     | :|  :: :| | :|   |  :||: |   |
Db    1399 iesleeakkkllkdae-alsqrleekalaydklektknrlqqelddltvdldhqrqvasn 1457

Qy      93 -KDKEKRDSQVIIDTL---------RDTLE----ERNATVVSLQQALGKA---------- 128
            : |:|:  |:: :           ||  |    |:    :|| :|| :|
Db    1458 lekkqkkfdqllaeeksisaryaeerdraeaeareketkalslaraleealeakeeferq 1517

Qy     129 --------EMLCST----------LKKQMKYLEQQQDETK----------QAQEEAG-RL 159
                  | | |:          |:|  ; |||| :| :           || |:|  ||
Db    1518 nkqlradmedlmsskddvgknvhelekskraleqqveemrtqleeledelqatedaklrl 1577

Qy     160 RSKMKTM--------------EQIELLLQSQLPEVEEMIRDMGVGQSAVEQLAVYCVSL 204
              |: |              |: : ||  |: |:|  : |        :| |:   |
Db    1578 evnmqamkaqferdlqtrdeqneekkrllikqvreleaeled------erkqralavask 1631

Qy     205 KKEYENLKE-------ARKASGEVADKLRK-------------------DLFS----SR 233
           ||   :||:       | ||  ||  :|||                    ::|:    |
Db    1632 kkmeidlkdleaqieaankardevikqlrklqaqmkdyqreleearasrdeifaqskese 1691

Qy     234 SKLQTVYSELDQAKLELKSAQKDLQSADKEIMSLKKKLT--------MLQETLNLPPVAS 285
           ||::: :|: | : || |:::  : |::|   |  ::|        :| |   |    :
Db    1692 kklksleaeilqlqeelasserarrhaeqerdeladeitnsasgksalldekrrlearia 1751

Qy     286 ETVDRLVLESPAPVEVNLKLRRPSFRDDIDLNATFDVDTPPARPSSSQHGYYEKLCLEKS 345
           :  : |  |     : |::|    ||       |  |||  |           :|  |:|
Db    1752 qleeeleee-----qsnmellndrfr-----kttlqvdtlna----------elaaers 1790

Qy     346 HSPIQDVPKKICKGPRKESQLSLGGQSCAGEPDEELVGAF------PIFVRNAILGQ--K 397
           :   |  ::  :   || :  |          :|| ||        |    | :||  :
Db    1791 aaqksdnarqqlerqnkelkakl----------qelegavkskfkatisaleakigqlee 1840

Qy     398 QPKRPRSESSCSKDVVR 414
           | ::   | : :  :||
Db    1841 qleqeakeraaanklvr 1857
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Job time: 8121 sec